



## Final Transcript

**LOCKHEED MARTIN CORPORATION:  
Public Meeting Principles & Standards for Water Resources Study**

June 5, 2008/8:30 a.m. EDT

### **SPEAKERS**

### **PRESENTATION**

Mary                      My name is Mary Apostolico and I'm with SRA International. I'm repeating this, so that it can be transcribed. And I am going to be helping you facilitate today about public meeting. Again, this meeting is a listening session to get your comments and feedback and just wanted to let you all know that the panel here will be actively listening to you and not engaging in discussion.

I'm going to go through the process today with you. First a few little logistic things, so you know where things are. There's water outside. The facilities are out the door to your left and all the way around. If you need

to quickly the building, if you come out the doors, turn right. There's an exit right on your right just about 20 feet from outside the door.

The process for today, we are having two lotteries to have public comment. The first one ended at 8:30 today. What we're going to do is draw names now for the order in which people can speak. If people arrive 8:30, there will be a wait list and if there's time, we're going to incorporate those people in to further comment later this morning in this session.

For each session, you'll be allocated approximately ten minutes, your allotment. How we're going to do it is, we're going to post the list up here on the overhead. It will show who the speaker is and who the next two speakers are, so we ask that you just be prepared. As you see your name, make your way up, so that you're ready to come up and speak.

If you're not selected in the morning lottery, which I think everyone will get in today, but if you're not selected in the morning lottery, you will automatically be entered into this afternoon's lottery. This afternoon's lottery to sign up will close at 1 p.m.

General ground rules for today, just so that everyone can be heard, please turn off your cell phones, pagers, Blackberries, or at least put them on to mute. Again, panelists are here to listen to your ideas, not to engage into discussion. One person is permitted to speak at a time. Selected speakers will be allocated the ten minutes and speaker may only speak once today. Speakers cannot transfer or yield speaking time to another speaker.

A reminder that this is being transcribed to insure your comments are documented correctly. Members of the press and others can listen to comments presented during this meeting via teleconference. That's why you do need use a microphone because it's being projected through the teleconference through the microphone system.

Again, written comments are due by close of business today. The address and e-mail is provided in your handout and on the agenda.

Any questions on logistics? Okay, great. I'm now going to introduce as you all know, the Assistant Secretary of the Army for Civil Works, the Honorable John Paul Woodley, Jr.

J. Woodley

Good morning, everyone, and welcome to our public meeting referring to the provision that's taking place of the principles and guidelines for water and related land resources implementation studies for the Corps of Engineers. I'm delighted to see this very good turnout. Although I've asked Larry Prather if we couldn't get a refund if we moved to one of the smaller rooms downstairs. He said that train has already left the station. I very much appreciate everyone coming.

I will say that I had the privilege along with General Riley of attending the last ten days of the conference, the annual general assembly of PEON, the permanent international association of navigation committees of which I'm the chair of the U.S. section, General Riley is president of the U.S. section ex officio. That was held in Beijing, China and followed by a working cruise through the Three Gorges dam and up the Yangtze River as far as Chon King.

As a result, I have had a little time to recover, but it is now 8:35 p.m. on body clock and right about lunch time, it will be midnight. And so I don't know exactly how interactive I could be, even if that was called for by the format. I am carefully listening to everything that is said. I'm really very pleased that we have this opportunity and this very extensive

representation of some of the most thoughtful people in the country in the area of water resource development.

We take the responsibility given us by Congress to conduct this revision on a very short time frame very seriously. We are soliciting even in spite of the short time frame, we want to make every effort to solicit in every possible way the input of interested persons and the ideas of the communities that are interested, which really amounts to virtually every community in the country.

So in aid of that in addition to our very extensive opportunities that we're providing now and in the future for written comments to be accepted, General Riley and I thought that there's no substitute for actually having the people that are going to be, have the responsibility for moving this process forward sit in front of you and make ourselves available personally to listen to the points of view and to have an opportunity for people to state their concerns and their ideas and bring forward their ideas in a open and public forum.

So we have it in a public place. My thought was that we would do it in our headquarters not too far from here. But we realized after thinking

about that, that is a public building that we share with the GAO and people had to be checked into it. You have to go through metal detectors and whatnot. We wanted to make sure that we were in a venue that was as open to any person who cared to attend as we could make it.

So we got an ordinary hotel room here. I wasn't checked by anyone coming in. I don't think anybody else was. Whoever wants to can be here and if you want to be here, then you're more than welcome.

The principles and guidelines essentially are the federal government's statement of what we will be looking for as in designing and evaluating water resource development projects for years to come. Once they're in place, they will be used by water resource development planners across the country and around the world to determine what the views are as to what values are we're seeking when we seek to invest in water resource development. As such, they are, perhaps the most important document that we have.

Right now the one we're operating under are not peculiar to the Corps of Engineers. Congress has decided that they want to establish a set of principles and guidelines peculiar to the Corps of Engineers. That's

certainly a departure from prior practice, but the one that will result in a document that will still be, it will not concern itself with other agencies. It will still be a very important and influential document across the government.

So I welcome you, in addition to welcoming you, I want to thank you for bringing forward your ideas and comments or criticizing the current state of affairs that we have in the principles and guidelines that exist and for describing for us, how you believe these can be improved through this process.

So I want at this time turn to the mike over to General Riley. Most people, I guess, know that General Riley having served as the Director of Civil Works for the Corps of Engineers for some time. I have the really wonderful privilege of working with him in that capacity has recently been given more broad responsibilities as the Deputy Commanding General of the entire Corps of Engineers. He's very proud of that. And since no one has yet been named to replace him in his former capacity, we have still be able to prevail on him to help us with this process and I'd like to recognize him for any comments that he'd like to make.

General Riley

Thank you, Mr. Secretary. I returned from China last Friday, so I have a few days on the Secretary. I think not that because I haven't been replaced my old job does not even need more supervision. I think they are in good shape.

As you know these principles and guidelines have been around since 1983. So it is time to take a considered look. Of course, we've had direction from Congress in the last word or two to revise those. And there's really three major components: the principles and standards and then the procedures. What we're really about right now is taking a look at the principles and standards, those broad values in the principles, which really set up a very general selection or recommendation criteria and then standards, how we carry forward with the planning into informed decisions.

What we want to do is establish those principles and standards and the procedures, the more detailed procedures, how you calculate benefits, that will be secondary to this effort. And we'll have even more dialog as that goes on. So we're really focused right now to establish those principles and standards and agree on those national objectives.



Now this has been a long process and really has been a national dialog going on for at least ten years now. You can even go further back than that. In 1986 Section 1135 established ecosystem restoration in... So we've had that dialog and that increased our mission. And that was really a pretty significant difference from the 1983 principles and guidelines just three years later. So that dialog has been going on now for over 20 years.

Then in ...2000 Section 216 requested and directed the National Academy to do a series of studies on our planning guidelines. I know Dr. Galloway, you're a part of that. There maybe others in here who are part of that effort as well, too. We counted a total of 18 National Academy reports in the last, since 1992 that have made recommendations. So this dialog is something we have not just begun this year. It has been ongoing and we incorporated many of those National Academy guidelines of Section 216 reports into our regulations so far.

In addition to that and two years ago in the Appropriations Act, they required the National Academy of Public Administration to do a study on our planning and how we budget for our process. So that also contributed to the dialog. And then as you know for the last ...which took many,

many years to pass, there was a great deal of dialog on that and direction from Congress that targeted our planning process.

So this effort which you see here today is a public meeting or hearing, where we'll listen to your input. We've been listening for at least ten years, probably closer to 20, you go back to 1986 when they changed the ...in Section 1135.

I don't want to engender, I'm not looking to get April friendship here from the Audubon Society or shock any of our developmental friend, but back when I was command of Mississippi Valley Division, the Sand County Foundation up in Wisconsin gave me a book that although ...almanac. Also part of that was the land assets, the SEA ...back in I believe it was in the '40's. But he talks about land ownership in that essay and the responsibility of land owners to be good stewards of their land.

But he recognized at the end how development will continue to occur. His closing line in that essay was "We shall hardly relinquish the shovel, which after all has its many good points." He went on to say that we are in need of gentler and more objective criteria for its use. So I would submit to you that what we're about today is trying to achieve that vision

that he had a little gentler, more objective criteria for the use of the Corps of Engineers and our civil awards program.

For instance, we consider public safety as a prime planning objective. In addition to that, we want to look at systems. We don't want to look at a project by project basis. We want to make sure system, and when I think of systems, I think of space, function and time. Space in our context is being a watershed. Function of being multi-purposed project, there's not just a navigation function or an ecosystem function or flood control function. Those are Corps of Engineers, there could be other functions outside the Corps and any other federal or agency functions, air quality, water quality, water supply, so multi-function approach and then time.

I when I speak time, I talk of a life cycle of a project. So we don't want to plan for a project, throw it over transom and turn it over to the owners and forget about it. We want to plan for the life cycle of that project and then adaptation over time to adapt to changing requirements. And also because of that life cycle approach that we take, there's an uncertainty involved with that. There are uncertainty increases the greater the length of your life cycle. And there's a risk inherent to that. There's public risk, but there's risk to ecosystems and there's risks of making the wrong choice.

So in our planning guidance we want to talk about that risk and uncertainty. What is the uncertainty that you have and then what's the risk of making the wrong selection. So it's not as...say more objective. We have a pretty objective ....right now if you think about it. ...we seek the point of diminishing returns. We pick that and say that's the national economic development. We want to broaden that code in this process.

As you know and you've probably heard, the executive branch, we're working on a lot of that right now and we put together some thoughts that we've coordinated with all of our other agency partners. They're taking a look at those thoughts right now. There'll be opportunities for more conversations after this, certainly with the principles and guidelines, but even more importantly, or further on down the road with the procedures that I talked about earlier.

So as Mary said, we're here to listen. If we engage in dialog, it will be insure to clarity of your thoughts. We want to have a reasoned, well thought out logical response....respond off the cuff today, but we may ask questions to insure we fully understand your comments and what that means and all the second and third order effects that it might have in the federal government.

So thanks to everyone who's participating today and joining us. I know some will be in later this afternoon because of flight delays or travel delays. But we appreciate your time and think this is an important effort for us all to be involved in.

J. Woodley            Thank you, Don. I'd like to recognize that we are ....Ben Grumbles, the Assistant Administrator for Water USEPA, who is a very important partner in all of these endeavors. I'd like to ask Ben if he'd like to say a few introductory words.

B. Grumbles            Thanks, JP. I just really appreciate the chance to be here and most importantly, the welcome you have placed and given to EPA to be very much a part of this process, along with other agencies. I view the partnership we have and the ongoing relationship as key—you have a very ambitious schedule on a very important task. I want to thank you personally and I think commend others and Congress for moving this along. It's an important effort. EPA is very much involved in it and four years ago, I think you and I were beginning that process when we entered into a memorandum of agreement embracing watershed management and stronger collaboration among our two agencies. This is a natural progression of that in the planning and project selection process.

So EPA really values the effort here. We see this as critical to advance watershed and systems approach and also increasing challenges from storm water on a regulatory and policy standpoint, it's going to be very important in this effort. So the principle of adaptive management, finding ways to also continue to integrate that into your process in the civil works program and project selection is important.

We're willing and eager to be part of the effort. We agree with you. This is a climate of opportunity to embrace some improvements and change. I just thank you for it, JP.

J. Woodley

Okay, we are then ready if Larry, you would like to give us introduction to your efforts, your general overview and the timeline for the process that we are currently undertaking. And then at that point we will be ready to be ...public comments.

L. Prather

Thank you, Mr. Secretary. I just to briefly recognize the other federal partners that are here today, just by name. Nick Marathon from the Agricultural Marketing Service representing the USDA; Bob Will for the Bureau of Reclamation, our Department of Interior representative; Carl Stock from the Bureau in Denver. We have Terry Breyman from the

Council on Environmental Quality, Associate Director of Natural Resources there; Ken Simon in the back row from Interior from ...policy; and my good friend, Greg May who used to be commander of the Jacksonville district and now with the Department of Interior...south Florida task force who has been very helpful to me, very helpful indeed. I appreciate my friendship with him.

Did I miss any other federal representatives? Oh, there's Ken Kopocis. I need to say hello, Kan Kopocis who works for the Committee for Transportation at the House of Representatives ...many miles with ....over the years, so thanks for being here, Ken. We appreciate you support.

I just wanted to say that it's hard for me to get a group together to listen to me. I think I remember when I was out in Cincinnati, they asked me to go down to the Kentuckians for Better Transportation and I couldn't believe that they asked me to be the lunch speaker. And there was like hundreds of people there. Finally I figured out that behind me was a standup comic and they were drawing a prize and you had to be present to win. At least they had me go after the drawing today. I think Ben was still in high school and they probably thought down in Louisville, that's about how far

back it goes. He probably, well, he still don't have the ...better transportation.

At any rate, I think we're here today with the Americans for Better Water Resources and I appreciate you being here. I appreciate all the interest that you've shown as we got on the way here. So we have some slides that I want to run through that really, as quickly as I can, so this is really about you talking. I just wanted to say a few words about the basic planning process, which if you look at what happens along the backbone of this planning process, it's not all that complicated.

It's a sound process. It doesn't assume that anything has to be done. It starts out from a clean sheet of paper and it asks what the problems are in the planning context or this study area we talk about sometimes. And you look at some of the conditions that determine how well you can solve these problems or realize these opportunities and you formulate alternatives to address these problems.

We evaluate these effects according to some set of criteria that are usually manifest in our context in terms of objectives. You compare these



alternatives plans and weigh them and trade them off as economists are fond of saying. And then you select a recommended plan.

Any of you whoever were sent to some management class or one of the segments of the management class was problem solving. That's really what this is all about. It would be kind of hard to believe this is sort, well, we haven't revised the principles and guidelines since 1983. This part of it here would be like throwing a ...book away. In my mind it's about the values and some of the other things. But the basic process is very sound and it doesn't assume anything has to be done. At the end of the day, you can always decide to do nothing.

The 1983 principles and guidelines are actually the third manifestation of a planning guidance under the 1965 Water Planning Act, Water Resources Planning Act. There were two others, one that was called Principles and Standards. Both of them were called Principles and Standards. There's a story about this one got called Principles and Guidelines, but I think I'll forgo that story and just say the first two—one was in 1973 in the Nixon administration and another in 1980 was in the Carter administration. Both of them had two objectives. That was the economy and environmental

quality. And then in 1983 it was decided in the same sort build up that led to cost sharing what we needed to do was focus on the economics.

So they adopted a single federal objective, four accounts: national economic development, regional economic development, environmental quality and other social effects. We maintained the four account framework of the Water Planning Act. That's where that comes from, the four objectives that Congress gave us in the Water Planning Act. The rule was to select the NED plan unless the Secretary grants an exception. There was a provision for addressing other concerns. We formulate other plans and talk in terms of being able to see what the national economic development costs were of formulating along other dimensions in terms of concerns.

The selection rule is stated there, you can read it. It just says pick the plan with the maximum national economic development benefits. But the Secretary grants an waiver. In fact, in the '90's, particularly in the '90's, but even going back to 1986, Congress began to a series a incremental steps that moved the Corps of Engineers into an increasing role in ecosystem restoration, aquatic ecosystem restoration. So to respond to

that and institutionalize that role in the Corps, we essentially evolved to a blanket exception to the NED rule for ecological restoration.

So this just illustrates that a typical case of an environmental project where our goal is, we're giving up NED. That just means it costs something. A single purpose restoration project gives up NED and produces environmental quality as we measure it in terms of some metric that tells us that we're improving the aquatic ecology.

So the current situation is that we adopted ecosystem restoration as an objective. That's de facto. We've modified the 1983 plan selection rule. As Secretary Woodley and General Riley discussed, we have Section 20031, the Water Resource Development Act of 2007, which directs the Secretary of the Army to revise the principles and guidelines according to some guidance and some policy guidance from the Congress and some other considerations.

We've decided to break that down into two steps. The first one will be to revise what's called principles and standards, not to be confused necessarily with previous versions. Principles are those broad values and generally the way you just make decisions and standards is a more detailed

explanation of how the planning process is supposed to work. In other words, how do we go through those steps that I had on the first slide and produce the information to inform the decision makers that have to make these decisions. So that's part one.

We've like to get a draft to the public by the end of July, begin a 30 day comment period. National Academy panel, forum in early August, Dr. Jacobs is back here today from the Academy and we're working with him to get that set up. I hope we're on schedule. We're scheduled to complete the revision November of 2008 of this first piece. This is a very high level piece, but a very crucial one because it deals with what's going to count in the evaluation of these projects and how we're going to make the decisions.

Then this procedures piece, let me just say a little bit about procedures. Procedures are the very detailed guidance about how to do benefit analysis essentially. That's what they have been. That's Chapters II and III of the old 1983 guidelines, very detailed recipes for how one does the benefit analysis or, say, purposes. For example, inland navigation, how do I compute benefits and display those for an inland navigation project, or a flood risk management project, or a water supply project. So when

General Riley talked about the time we'll have, we're going to have considerable time working through those additional conversation with regard to those details because that stuff is in need of some updating. We need lots of help with that and we're going to be engaging the public in that process. So what we'd hope to do this year is to get a literature review together and decide what kind of resource plan we need to get the job done.

Let me just go back up. I just wanted to point out on the first part, that we have other opportunities; we're going to have a lot of time to continue to talk to people. Once we get a draft out there, if people want to come in and talk to me directly, we have some folks that think that they get a little nervous, some of our counsel, about the Federal Advisory Committee Act and how we talk to people. That's one of the reasons we're here today in terms of a public meeting because that really obviates any problems that we have that way.

So I just want to say that once we have something out there to talk about, it will be a great opportunity to have further conversations. I'm going to be available to talk to anybody who has the time to talk to me.

Just wanted to say, what are some of the issues and you've heard the Secretary and General Riley talk about some of them and Ben Grumble has talked about some of them, some of the things we're thinking about, some of the things that almost have to show up in any revision, just have to in my mind. One of them is to go ahead and formerly recognize what we're doing already, which is the aquatic ecology. That's a restoration objective. So I would expect that you would expect us to have that, I'm sure. I'm sure we would.

Public safety for flood risk management, some sort of a standard or some way of better coping with—that doesn't mean build 500 year levees everywhere. It probably means a reasonable combination of structural and non-structural means that we make sure that have evacuation plans that are resourced. That people are appropriately communicated with and that those kinds of aspects of the plan are items of local collaboration in a way, for example, that makes sure that people are safe. That's one way of looking at it.

I think if you went back to the 1907 when Theodore Roosevelt appointed the Inland Waterways Commission, he made a very eloquent statement, I didn't bring it with me today, I wish I had, about how every river system

has to be considered as a unit. He talks about that many times people think that uses always have to conflict, but that we ought to really work in a watershed framework to look for synergies. And watershed ideas open up choices. In other words, if you have collaboration in watersheds, then you have a bigger choice and it's a fundamental fact that if you have an enlarged choice set, you're able to make better decisions or decisions that increase well being.

We believe it's important to work in that framework and achieve those synergies. That's part of our strategic plan. So I would think you'd have to expect that the Corps of Engineers would be interested in those things and Ben mentioned watersheds.

Collaboration, I just mentioned that. The plan selection rule and the formal one, the one that we departed from is to maximize net economic development benefits. I expect you would see that we would formally recognize what the de facto decision process is evolved to and emphasis on adoptive management. We need to particularly in some of these ecological settings where the outcomes are uncertain because our understanding of how the change in hydrology or hydro-geomorphic changes are going to result in biological outcomes that are sometimes

uncertain, that we would want to incorporate that. General Riley mentioned that.

So those are the kinds of things we're thinking about. This is a very good time for you to have an impact on us. That's why we're here today. This is must meant to provide you with some background.

I think I had one more little slide of where we'd like to be someday is with the gentler criteria or whatever is that evolve the projects that can produce both economic and the ecological benefits, recognizing the trait that we're going to have to still make a decision along that line. That we can formulate as many projects as we can that have both kinds of benefits to this nation.

Thank you. That's the end of my presentation.

M. Apostolico

Before we move on to the public comment period are there any questions directly related to background and timeline? We're going to have everyone's name up here that has been selected. It will show the speaker, the current speaker and then the next two speakers. But I'll run through the list real quick, so you'll know: Gerry Galloway, you're going to be



first. Mark Carr, April Smith, Amy Larson, Tom Teets, Steve Fitzgerald, Harry Simmons, and John Burns. So everyone who signed up before 8:30 was able to get into the lottery. We will do a wait list if we have enough time after wait list lottery.

For the speakers, I will have time cards to let you know just how your time is going because you're going to get approximately ten minutes. I'll give you a five minute and a two minute, so you know what's left of the ten minutes. With that, Gerry.

G. Galloway

Good morning. It's a distinct pleasure to be here and a privilege, actually. I appreciate the opportunity to meet with you all this morning. I'm Gerry Galloway. I'm a professor of engineering and public policy at the University of Maryland. I also work in our university water resources collaborative.

My message today is relatively straight forward. We have severe water challenges. Climate change is just around the corner and they're only going to exacerbate the challenges we already face. Dealing with the future is going to require that we have documents that guide the development of needed water projects and produce projects that truly meet

the needs of the nation. They must be nationally recognized documents, rather than regulations of the Corps of Engineers that are not part of a larger process.

Ad hoc or Secretarial approval just doesn't work in the long run. Just that we understand in the military, the commander's intent and how that pervades everything that we do, the commander in chief and the Congress need to have their intent clearly expressed. OBM doesn't listen to anybody, but those two agencies and I'm not even sure that they listen to them.

For 25 years the economic principles and guidelines for water and related land resources implementation studies have formed the ground rules under which important development projects are studied, authorized and funded. Over this period as we've just heard, they have focused on national economic development, rather than on all the benefits and costs that projects might produce: the economic, the environmental and social. In eliminating the principles and standards in '83, the Reagan administration made national economic development the sole objective. It would as many people would contend, eliminate consideration of environmental benefits, public safety and other social impacts. In spite of the fact that

there have been exceptions, when you go to the field and talk to the planners, there's this hesitation to do anything that moves away from NED.

As a result of the failure of Congress to revise principles and guidelines, many projects with strong environmental, social and public safety benefits have been left on the table to the detriment of efforts to protect and enhance our natural environment, provide social justice for those who need our support and off the safety to the many people who live at risk in areas where economic benefit alone does not justify their protection.

What's interesting is review after review by the National Academies and other agencies have pointed out the need to change principles and standards. This started as early as 1986 as General Riley noted. It is not something new. In 1994 a White House study after the Great Mississippi Flood indicated that the principle federal water resources planning document, Principles and Guidelines, is outdated. At the same time, EPA sponsored a study that came up with almost the same conclusion.

In 1999 a NRC committee examined the Corps planning process and noted in their report that the committee recommends that federal principles and

guidelines be thoroughly reviewed and modified to incorporate contemporary analytical techniques.

In 2000 a report by the National Research Council committee investigating Corps methodologies for flood risk determination indicated that to appropriately include flood consequences and their relative importance, the committee recommended that the ecological, health and other social effects of the Corps flood damage reduction studies and the tradeoff between them be quantified to the extent possible and included in the national economic development plan.

While reviewing the issues associated with maintenance of the ecosystems of the Missouri River, another NRC committee found that Executive Order 12893, which strengthened the benefit cost requirements for federal agencies, but open the way for wider consideration of environmental values was not taken into account and the P&G had not been modified to include such approaches.

When the Water Resource Development Act in Section 216 of the 2000 requested the National Academy to review Corps peer review procedures and methods and analysis, they came up with five different studies. The

committee looking at analytical methods found that the principles and guidelines should be revised to better reflect contemporary management paradigms, analytical methods, legislative directives and social, economic and political realities. It noted that benefit cost analysis should not be used as a lone criterion in deciding whether a proposed, planning or management alternative in a Corps planning study should be approved.

The committee that was examining river basin planning techniques noted that comprehensive guidance on integrated planning is not found in the current principles and guidelines. The P&G has not been revised for 20 years and should be updated to provide sufficient and balanced information on how to conduct integrated water systems planning.

In 2005 a separate study of water resources planning for the Upper Mississippi reported that another example of federal direction that should be revised and clarified is the principles and guidelines. They go on to give some details.

Clearly, there's a push to revise the principles and guidelines. While I approve what's been done by the Corps in certainly support it within their

own standards to do this in the regulation, the Corps need top cover.

There needs to be a national attention to this.

You can go through and I've discussed what was in the principles and standards and how that moved ahead. I would urge you in the conduct of your review and the preparation of the new principles, certainly to accept the objectives that are included in the congressional legislation, sustainable economic development, avoiding unwise use of flood plains and protection and restoration of the functions of natural systems. But I would argue that's not just restoration. It's far beyond, it's the entire issue of environmental quality.

In addition I believe three additional objectives should be explicitly included in the revision. One is the protection of public safety. Two is the maximization of positive social effects that stem from the proposed project and three the development of projects within the context of the watershed in which they are located, something that needs to be done.

These objectives are in line with the considerations found in Section 2131B.3 of ...2007. Under the current guidelines a \$2 million project protecting a \$4 million home would be seen as provide greater benefits to

the nation than the same \$2 million project protecting 40 \$25,000 homes and the families that live in these structures. This doesn't pass the common sense test. The protection of public safety were an objective, the benefits of providing protection of these families would have to be considered in final accounting.

It's interesting to note then in previous testimony, a former acting assistant Secretary of the Army noted that we have the ability to quantify the loss of life and to deal with that. We just haven't done it. But why is not being done? I would argue that the need for this accounting should be explicit in the revised principles and guidelines. It's in consideration of public safety. It will be important to examine the 100 de facto national standard for flood protection.

Two recent studies conducted for FEMA by an interagency levee policy review committee and by the water resources at Maryland have indicated the reasonable level of protection should be at the 500 year or standard project flood level. And California has already moved to the 200 year level. A recent study by the Corps' Institute of Water Resources indicated, spoke very strongly of the need to consider other social effects, the human needs that include distributive justice, social correctness,

quality and health and safety considerations in addition to the economic well being factors.

Information on these multiple dimensions of well being is increasingly be used by federal agencies, the World Bank and other countries to provide a more comprehensive understanding of quality of life and livability issues. This clearly should be part of the principles and guidelines.

Establishing a watershed objective addresses two issues: the pure practicality of engineering a project within the context of related projects and activity within the watershed. And the second part of that is to insure that the funding and the support for the project includes that very, very critical component.

Clearly as directed by Congress, the new principles and guidelines should employ the best available economic and analytic techniques. We should certainly consider the issue of non-structural protection and eliminating the bias that does exist in the current version. I would recommend that the new principles and guidelines require project planning to include full consideration of future conditions in the watershed in which the proposed project might be developed. These future conditions should include the



potential hydrologic and hydraulic impacts of climate change and any forecast development in the region that might impact the project ...It's foolish to develop a project on yesterday's information and not what it might be in the future.

I would also urge you to recommend that the Administration and Congress that the principles and guidelines you develop also be applied to other federal agencies involved in water resource development. The current principles as you know apply only to four, the Corps, the Bureau, the Natural Resources Conservation Service and the TVA, but do not cover projects supported by other agencies, such as EPA, the Small Business Administration, the Federal Emergency Management Agency. It is not appropriate to have one set of principles and guidelines for the Corps of Engineers and other principles or not principles for agencies involved in similar work throughout the nation.

I find it interesting that Congress directed the Secretary of the Army to in effect substitute your version, Mr. Woodley, of the principle and guidelines for those promulgated by the President without requiring reconciliation of the Corps principles and guidelines with Administration's principles and guidelines, which I assume will continue to exist. This

seems to be going in the wrong direction in an era when we're looking for a comprehensive approach to water resources developed in the nation.

I compliment your efforts to obtain public input for this important effort and thank you again for the opportunity to speak to you today. I have given a copy of my full remarks to each of you and to the staff.

M. Carr

My name is Mark Carr. I'm with the AEP Rivers Operations. We're a large barge line headquartered in St. Louis, corporation headquarters in Columbus, Ohio. We have about 1,400 mariners, 2,700-2,800 barges and about 60 boats. We operate in Pittsburgh, Chicago, New Orleans largely. We used to have a nice business on the Missouri River, but that went away.

I wanted to make sure that folks and your panel, I know, and in the general audience recognize that the mariner community has an abiding interest in a good river environment. We live out there in ways that have largely disappeared from American society. Most of our people wake up on the river and go to bed on the river about six months of the year. Except for fishermen and a few other folks, there isn't a community in this modern society that has that kind of intimate relationship with the river. I think we

all have done a disservice of setting up a mariner versus conservationist duality over the years. We're working rapidly to make sure that folks understand our viewpoint and how we come at these kinds of issues.

The recent excellent work that the Corps has done in New Orleans shows that when the national and Washington will are aligned and there's a pressing need, that the Corps can plan and execute projects. We're concerned that the missions of the Corps, especially the public safety and environmental quality will suffer in ways in an over-planned environment and over-analyzed environment. Those missions and all the other missions will suffer in the same ways that maritime infrastructure mission has been challenged in this generation of projects as opposed to projects that came in previous decades and generations.

We think that the process as it evolves should recognize economic benefits beyond the construction project and beyond the banks of the river. The ecosystem focus that has been gaining prominence and the watershed focus that's been gaining prominence in the planning process recognizes benefits away from the riverbank. It's not just between the banks of the river and the immediate ....zone, but it's the conservation and the ecological benefits stretching quite a ways out from the river.

And in our understanding, current and previous planning practices have restricted the economic benefits of infrastructure projects due to the project themselves and maybe shore side projects, but not projects over the hill. And different ports and terminals that we call on, the terminal operation on the river side is a real small component of an industrial complex that may be located up on the hill or over the hill. We believe that as the ecosystem benefits our broader band between the river banks, we believe that the economic benefits should include those industrial facilities and the labor markets, the under-utilized labor resources in these regions of the river area that are away from the shore.

We think that the watershed focus is appropriate, but I can't get a sense that the watershed studies are available for the entire country. I'm very concerned that if you require a watershed focus before you plan a project and act on them, that we're not going to get anything done for another generation because the upper Mississippi project, that analysis that went into the ...report of a few years ago took, what, 10-12 years. There are a lot of different things going in there, but I believe that we feel that we have a watershed study. But if you look at all the other watersheds in the country, I don't think you're going to come up with a real long list where that's prepared. If we have to step back from any kind of project work,

whether ecological, public safety or national, regional economic development until all the watershed studies are done, I think we're going to be here for a long, long time. I'm probably going to have a lot of job security because it isn't going to get done in the remains of my career nor in your careers.

In general, we fear that the Administration's approach to the planning and over planning is likely to paralyze the Corps of Engineers within infinite planning and planning processes that defuse the focus, rather than narrow the focus. And again, I started out talking about the importance in a day to day measure of the environment in the watershed and a level of intimacy that's largely unknown in American society.

So I'm not saying that we need to stop looking at these important issues, public safety, environmental quality, national economic benefits and all. But I believe that there's a real risk of focusing too broadly, never being able to get anything resolved and done, looking at the worse things that happen in the Mississippi River Nav study and engineer or process that eliminates those kinds of problems and diffused focus and helps the Corps and helps the nations focus in on the important issues and then get things done.

I think getting things done is the weakness. If environmental quality and projects, if public safety projects track on the same path that maritime infrastructure projects have tracked on in the last number years, we're going to have a real problem. Thank you.

A. Smith

My name is April Smith with Audubon. I serve as the Director of Ecosystem Restoration in Washington DC office. And Secretary Woodley, I want to thank you for holding this public hearing on this very important issue and thank the rest of the panel for being here and listening so patiently all day long and I'm glad I'm not last.

A few points I'd like to raise on behalf of Audubon and our one million members and supporters across the country. We recognize this as an important opportunity to advance our mutual goals of stewardship of our important natural resources as reflected in a memorandum of understanding and as reflected in our nation's growing priorities and concerns. First and foremost, I'd like to talk about environmental protection, ecological restoration. This core mission, this objective must be on equal footing with the other core missions.

Secondly I wanted to mention the non-structural and natural system options. The current principles and guidelines have an inherent bias against non-structural and natural system alternatives as discussed by a previous speaker. And protecting and restoring healthy, full functioning ecosystems and their associated ecological services should be given the highest priority for project planning. Projects should be designed to work with and maintain the integrity of natural system to the maximum extent practical.

Flood plains flood. Let's not lead people to believe that that doesn't happen. Keep people out of harm's way if you can rather than to figure out how to protect them once they're there.

Ecosystem watershed scale planning, this is essential to an efficient and effective water resources planning process, comprehensive evaluation of the complex interrelationships of water resources within ecosystems require this scale of planning.

Thirdly and inclusive and transparent and efficient process, the principles and guidelines when revised should provide for an extremely inclusive and transparent process. To involve the public, other federal agencies, state,

tribal, regional, local governments, nonprofit organizations and other stakeholders from the beginning, aggressively, inclusively to develop a broad and informed public and a trusting public to ...resource planning processes forward together.

This is a lesson we've learned in the Everglades. We're still learning it in the Everglades. But it's a key example of how when you're inclusive, when the process is transparent, when there's trust, you can advance. And when that is not in place, you get held in progressing the project.

The last thing I think is more part two, but dealing with procedures, we should recognize in the very beginning of this process, that having a single set of procedures for all objectives and all types of projects may not be the most efficient or effective way to move forward. We need to insure that the procedures in place are not unnecessarily bureaucratic, wasteful, time consuming or duplicative. We need to make sure we're focusing on individual organizations and entities' strengths, expertise, authorities and not going through motions that don't necessarily advance the objectives. That we're focusing on particular projects or programs.



Finally, the revisions should insure that water resource planning account for actual or anticipated effects of climate change and focuses resources to help ecological systems to adapt to mitigate those effects.

Finally, because I thought it was more a procedures, but the adaptive management process as we move into that, we need to make sure that adaptive management is scaled, both the geographically and temperaly to measure ecological responses, particularly for ecosystem restoration projects.

We urge the Secretary and the Corps to full embrace this important and unique opportunity to update the mission of the Corps to reflect national priorities and to fully realize the potential of the Corps to be a leading steward of our nation's precious water resources. Thank you so much.

A. Larson                      Secretary Woodley, General Riley and members of the panel, my name is Amy Larson from the National Waterways Conference. The Conference appreciates the opportunity to submit these suggestions for revising the 1983 principles and guidelines applicable to planning studies of water resource projects. The Conference established in 1960 is the leading national organization to advocate for the enactment of common sense

water resource policies that maximize the economic and environmental value of our inland, coastal and Great Lakes waterways.

Conference membership is comprised of the full spectrum of water resource stakeholders, including waterways shippers, carriers, industry and regional associations, port authorities, shipyards, dredging contractors, flood control association, levee boards, engineering consultants and state and local governments.

In recognition of the public value of our nation's waterway system and its contributions to public safety, a competitive economy, security, environmental quality and energy conservation, the Conference submits these comments to the Corps for its consideration.

As an initial matter, the National Waterways Conference sees no compelling reason to change the principles and guidelines. Such modifications would have no impact on the underlying concerns about the process and procedures used to develop, evaluate and review water resource projects. Nonetheless, in view of the congressional mandate, the Conference's objectives in submitting these comments are twofold. First, to recommend a few improvements and enhancements to the existing

guidelines and second, to urge caution in developing revisions for the guidelines in order to avoid causing any undue harm in the planning process.

In general, the National Waterways Conference is concerned that the Corps of Engineers has been unduly limited in its approach to solving the nation's serious and growing water resource problem. The 1983 PNG provides for a single planning objective, national economic development. Nevertheless, the Corps appears to have adopted an environmental quality objective consistent with prior principles and standards based on the 1965 Water Resources Planning Act. We applaud the Corps' consideration of both of these factors, but would support expansion of planning criteria to include other factors, including but not limited to regional economical development, social benefits and public safety.

We also support a comprehensive approach to planning. Water resource problems ...have realized for many years that the best solutions to the water resource problems are those that take a comprehensive approach even to the extent of considering non-water related problems. In recent years, the Corps' thinking has been evolving towards these watershed and systems thinking. Corps' strategic civil works strategic plan was founded

on this idea. And central to this idea is the notion that we must collaborate with others who have the responsibility, federal or otherwise, to implement the element of a best solution.

In addition to economic objectives, water resource planning must also consider public safety, a lesson tragically demonstrated in the recent years by the impacts of Hurricane Katrina and Rita. We believe it would be irresponsible planning to fail to consider the overall set of components within flood risk systems. An economically efficient solution which leaves people exposed to unacceptable and often underappreciated risks is simply not a sound solution. Further, sound planning for public safety must be accomplished in collaboration with other local interests who in turn have a variety of other problems to address.

The Conference supports a planning process that is broad enough to accommodate assignments to Corps based on future needs, the Congress mandates, even those assignments that are outside the Corps' traditional mission areas. We believe optimal solutions are those which are derived from considering in a comprehensive manner all problems in an existing area. To accomplish this goal, planning must be collaborative involving all stakeholders to insure completeness.

The National Waterways Conference also believes that a fundamental premise of the Corps' planning process must be from a national perspective rather than from a federal perspective. This policy was articulated in the 1936 Flood Control Act, which provided that the federal government should improve or participate in the improvement of navigable waters or their tributaries, including watersheds for flood control purposes if the benefit to whomever so they accrue are in excess the estimated costs and if the lives and social security of the people are otherwise adversely effected. This concept is founded on the principle that the people get the benefit. ...2007 reaffirmed this policy that all water resource projects should reflect national priorities.

The National Waterways Conference supports revising the principles and guidelines to allow for such considerations, ...evaluation criteria to a national economic development and not include regional economical development, social needs and public safety would prevent implementation of a comprehensive water resource policy.

On behalf of the National Waterway Conference, I appreciate the opportunity to submit these comments and we look forward to working

with the Corps as it develops reasonable, flexible and comprehensive water resource project planning criteria. Thank you.

(Hard to understand speaker at times, due to poor annunciation.)

T. Teets                      My name is Tom Teets. I'd like to thank the panel ...provide the opportunity to provide our input in the revisions of the principles and guidelines today. My name is Tom Teets. I'm with the South Border Water ....District, your local sponsor the ....restoration plans.

The focus and direction of the Corps of Engineers' process has evolved since the update of principles and guidelines in 1983. The evolution of our projects, ...projects is an excellent example of how the Corps' role of water management in the United States has changed through time. CNSF project was first authorized by Congress in 1948 with the authorized purposes of the project to include flood control, regional water supply for AG and urban areas, prevention of salt water intrusion, water supply to Everglades National Park, preservation of fish and wildlife and recreation navigation.

Many additional authorizations related to CNSF have occurred over the years with the authorization of the Kissimmee River Restoration Project, as well as modified water deliveries project and Q111 project has been

turning points for us where we started to correct the problems of primarily the flood protection project that we have today.

Also in 1992 the Corps of Engineers received its first two authorizations to complete the central and southern Florida comprehensive review study.

This purpose of the study was to reexamine the CNSF project, to determine the feasibility of modifying the project to restore the south Florida ecosystem and to provide other waterway needs of the region.

This study was submitted to Congress in 1999 as you all know. The Water Resource ...Act of 2000 approved the ....restoration plan as a framework for modification of operations to the CSNF projects that are needed to restore and preserve and protect our ecosystem in south Florida, while providing for those other needs of the system.

This study as you know was very much a comprehensive study. It covered a 16,000 square mile area from Orlando to the Florida reef track. The problems that have been identified resulting from the construction of the CNSF are also very vast and include many things including the problems with the Lake Okeechobee, high water levels effecting the ...of Lake Okeechobee, extreme fluctuations to our major estuaries to the east and west, St. Lucy ....estuary, also detrimental effects within the central

Everglades system itself, very large impact on our ridge and slew systems and the impact to Everglades National Park and also unsuitable fresh water flows to the Florida Bay and Biscayne Bay.

As you know, the plan was approved by Congress. It was identified over 60 components that we needed to implement. It's a combination of many, many things that to be able to get significant restoration benefit throughout the south Florida ecosystem. The complexity and diversity of this restoration effort is a good example of the type of restoration planning and implementing efforts that the Corps of Engineers will be encountering in the future.

Unfortunately these types of planning efforts do not lend themselves well to the economic benefit analysis that have been typically used by the Corps of Engineers to select a recommended plan to justify projects in a nationwide setting. The congressional action taken on ...did not provide full authorization for any of the specific projects identified in the plan. Therefore planning efforts have been embarked upon to ...feasibility studies in our case, project implementation reports in the case of the ...for individual projects. A number of challenges have been encountered in the planning process for this program, the largest environmental restoration



program in history, which had not been typically encountered or addressed by the principles and guidelines. Implementing these challenges in large, multi faceted, multi year restoration programs like the Everglades and California Bay... and Louisiana coastal wetlands need to be considered as the P&G are revised in order to be used as a foundation for the Corps and other federal agency water resource planning in the future.

I want to highlight a few of the revisions that we think are needed for the P&G. First of all, it's already being talked about today, there needs to be a clear federal objective for ecosystem restoration, which needs to be defined with separate from the current national economic development objective. In the category of general planning considerations, P&G needs to be modified to direct the federal planning process to be fully collaborative and fully integrated with local sponsors into the planning decision making process and have truly a mutual decision making process embedded for the local sponsors, particularly those of us that have large cost share factors involved. Local expertise and knowledge provided by the sponsors can be key to identifying the correct project alternatives. We may be a little unique with some of the other agencies, but we have a lot of expertise in house to work with the Corps.

Climate change is also very important and the sea level issues need to be recognized. In south Florida that's very much need to be factored into the front end of many of our processes. The current P&G focus primarily on NED account, which has been used for years to justify these projects. As we've already heard today, that needs to shift. Unfortunately, the alternative formulation of project justification for ecosystem restoration projects cannot be viewed purely quantitative, economic terms as it's been used in the case of NED.

One of the challenges of justifying ecosystem restoration project is the continual need to quantify a benefit that may be primarily quantitative in nature. In our case, the quantitative evaluation has been conducted followed by further conversion into a single quantitative habitat unit, which oversimplifies the analysis, potentially leading to erroneous conclusions.

Alternative methods of justifying projects are needed when diverse ecosystems are impacted by a project. And example of SURP, we have, as you know, Lake Okeechobee, the estuaries and the Everglades.

Attempting to quantify the benefit in terms of equitable habitat units for all three systems at the same time is really not very practical or realistic.

Alternative methods for justifying projects should take into consideration how a project fits into the overall framework that has been established for ecosystem restoration. In some cases this could simplify and make more meaningful the project justification process. For example, there may be a need to increase storage capability in order to have more water management flexibility that will facilitate other follow-on restoration projects. In this case increment of storage that a project contains could be considered in the justification of process.

In addition the fact that this project is increment of the overall restoration should be taken into consideration of the justification process. This is one of the difficulties we're running into right now. We're trying to justify projects in small context, very big system, smaller projects, hard to justify.

Currently, although multiple output categories exist for watershed projects, only habitat ...seems to be acceptable versus a broader array of output, such as storage, reduction of seepage losses to the natural system, improved timing of delivery. In other cases where ecological targets have been identified for a specific area, such as an estuary, the percentage of attainment of that goal could be use to judge ...alternative. Unfortunately, project teams are being forced into translating that into the percentage of

attainment of a target back into a single, quantitative habitat unit, which in some cases, that transfer doesn't work very well.

Benefits and justification process currently used in CERP has led to a situation where justifying individual projects in the vast Florida ecosystem is challenging at best. Smaller, less costly projects, which may be more desirable to decision makers are difficult to justify because of their small benefit to a large ecosystem. In the case of SURP, even larger and more costly projects may not deliver adequate benefits because they are the early foundation projects on which the overall restoration will be built. These projects may be key to the ultimate success of SURP, but are negatively viewed by decision makers because of their limited benefits at the very high costs we encounter.

We'll happy to continue to provide comments as you go through the process of coming out with the draft. We thank you very much for the opportunity to talk today.

S. Fitzgerald

Good morning, I'm Steve Fitzgerald. Today I'm representing the National Association of Flood and Storm Water Agencies. Water resource challenges and flood risk reduction projects have changed since the '70's

and '80's as have values and perspectives. We applaud you for taking on this tough assignment today.

NAFSA is a national organization that represents local, regional and state flood and storm water management agencies, most of which are located in urban areas. Many of our member agencies are local sponsors for Corps within their communities. We are proud of our partnership with the Corps and the many successful federally partnered projects that reduced flood damages and loss of life in our communities, while at the same time providing places for families to live with lower flood risk and desirable economic, social and environmental conditions.

In making significant contributions to the cost of federal studies and projects, the sponsors have understandably taking a more active role in identification, development and implementation of flood risk management projects. Consequently many have developed a high degree of planning, environmental, policy and technical expertise. Local sponsors today are strong partners with the Corps, not just stakeholders. Because of this, close partnership and teamwork are mutual capabilities to reduce flood risk is greatly increased.

NASFA is pleased to present these recommendations for revising the 1983 principles and standards. One, reduce the emphasis on national economic development or any NED plan. The other three accounts are just as important. Even identifying the NED plan is important, there needs to be equal emphasis on the other three accounts when evaluating alternatives and selecting a plan to implement.

Local sponsors typically incorporate multi objective uses, which we think of as the four accounts in flood risk reduction project in order to garner community support and comply with other state and federal regulations. Other objectives often include public safety, water quality, ground water recharge, ecosystem restoration, environmental preservation and enhancement, aesthetics and recreation. Planning studies should distinguish each of the multi-objective benefits or accounts and identify what part of the plan each party can help implement. These practices generally fall into the Corps terms of integrated water resources management and collaborative planning.

Number two, embrace and encourage local sponsors and other to contribute directly to the success of the planning and implementation of multi-objective projects. The 1983 standards language addressing the

local sponsor role and public participation needs updating since local sponsors are true partners, recognizing them as such in the standards. Using local expertise and knowledge will not only produce a better plan, but will also strengthen local ownership of that plan.

Three, ease the process for selection of non-NED plan. With multi-use projects and integrated water resources management in place, the NED plan may not be the recommended plan. The recommended plan should not have to go through a more stringent process of review, approval and authorization.

Four, continued use of the four criteria, complete, effective, efficient and acceptable with equal treatment. All four are needed to have a successful plan or project, but at the same time, allow analytical restrictions and professional judgment to shorten the planning process. Often the required levels of analytical detail exceeds the return in identifying a better project or plan, allowing analytical restrictions or cutoffs in professional judgment in evaluating alternatives and plan selection. We are concerned that the Corps planning is heading in the opposite direction, following the unfortunate publicity on navigation projects in the recent Gulf coast

hurricanes. NASFA local sponsors need to do a better job telling the rest of the story to both Congress and the media.

Five, integrated risk management and risk informed decisions are good ideas, but please do not add analytical requirements that lengthen the planning, design and construction process. When risk items are added to the process, analytical requirements in the current process that have little or no value added need to be reduced or eliminated.

Six, emphasize addressing public safety and planning, design, construction and operations of water resources projects. The water resources profession learned or actually relearned the importance of public safety from the 2005 Gulf hurricanes. Public safety needs to be incorporated into every phase of the process on the same level as environmental compliance and environmental stewardship. Changes to project features and designs for public safety may not be noticeable, but public education, preparedness and public reaction will be critical to minimize the loss of life. Since most of this responsibility will lie with local and state government, this is a good example where directly involving local sponsors and other local agencies in the planning process would yield good benefits.



Seven, address the problem with low property value communities not able to compete with high property value communities and identification of the federal interest. This is an important issue that needs to be addressed primarily in urban areas. Local sponsors recognize this as an inherent problem with using only the NED to identifying the federal interest. Other options for measuring benefits, such as the number of homes or number of people are available.

Eight, involve NASFA and other local sponsor organizations in the development of the procedures. Even though including collaboration, risk informed decision making and watershed planning into the planning process are good ideas, local sponsors are very concerned this will add more time and cost to a process that already takes too long and cost too much. The fundamental lean Six Sigma principle is that more reviews and added steps decrease productivity and lower product quality. Local sponsors want to work with the Congress and the Corps on the procedures and planning process to reduce the current load on human and fiscal resources and increase the chance of identifying a project that communities can support and afford.

In closing, I'd like to say many stakeholders, organizations and other concerned parties will have good recommendations and legitimate suggestions for revising the principles and standards. On behalf of your partners, the local sponsors, NASFA requests that we have a chance to review the draft principles and standards and make comments before it becomes final. Local sponsors are committed with working closely with Corps to use, comply with and help pay for implementing the principles and standards. Only together can we successfully reduce flood risk in this country with appropriate regard for public safety and community and natural values. Thank you.

H. Simmons

Good morning. I thank the Corps for allowing me to appear today to provide the views of the American Shore and Beach Preservation Association regarding the revision of what is commonly known as principles and guidelines or P&G. My comments are an abbreviated version of ASBPA's written comments, which will also be submitted today. Actually, I think they may have already been submitted.

Founded in 1926, the American Shore and Beach Preservation Association represents the scientific, technical and political interests along America's coasts in an effort to shape national research and policy concerning shore

and beach management and restoration. I'm the President of ASBPA, as well as mayor of Caswell Beach, North Carolina, where we have an ongoing general revaluation report to improve our shoreline and thus, protect the towns of Holden Beach, Oak Island and Caswell Beach.

As many of you know, ASBPA has a long and successful history of working with the Corps to develop and implement policies, projects and programs that advance the Corps' civil works missions, as well as reflect the Association's goals to preserve America's coast. A key element in this joint effort has been the P&G as the basic foundation for many of the Corps efforts and our interests. While ASBPA feels that there is room for improvement to the P&G, the Association also recognizes that the effectiveness of the P&G in its current form has permitted the federal government and non-federal sponsors to partner on important projects that reflect the interests of the nation and of local and regional stakeholders.

The P&G has established a clear set of parameters for determining project worthiness, but it also allows for enough flexibility for formulation of projects that provide for economic, environmental, recreational and national economic development benefits. It is ASBPA's hope that the

proposed revisions will maintain this balance between set parameters and flexibility.

As the Corps moves forward with revisions, ASBPA agrees with Secretary Woodley's decision that the initial phase of the effort focus on the standards underlying resource planning for Corps civil works projects. The existing standards found in Chapter I of the current P&G describe the planning process and should be used to produce sound recommendations and decision.

ASBPA's first recommendation is to adopt revisions to the P&G that promote the use of regional or watershed management into the planning, design, construction, operation and maintenance of projects. The current civil work strategic plan, which has been endorsed by OMB embodies a watershed approach. The P&G should be revised to clearly reflect this approach, regional or watershed management as a systems approach to formulating and managing water resource projects. It applies to the planning and design of projects, as well as to their construction, operation and maintenance. Planning projects by region facilitates collaboration with state and local governments, as well as other stakeholders. It encourages opportunities to improve the effectiveness of projects, reduce

their long term cost and integrate projects that otherwise would be treated as disparate elements of different Corps business programs.

ASBPA next recommendation is that the revised P&G emphasize the importance of collaboration with non-federal sponsors, other federal agencies, state agencies, local governments and tribes as the norm in the formulation of water resource projects. Different perspectives and a more comprehensive discussion and evaluation of complex problems interrelated concerns and potential projects are more likely to occur with a collaborative approach.

In addition to the public stakeholders when appropriate, private organizations and private stakeholders should also be included in the collaborative process. The Corps should take advantage of its unique planning capabilities to move beyond just the Corps interests and embrace solutions that reflect the full range of the federal and non-federal interests. In the revised P&G, this collaborative approach with other federal agencies, as well as with state, regional and local interests should be strongly encouraged, especially for complex studies with multiple issues and needs.

I must add, though, that both the watershed and collaborative approach recommendations I have just mentioned add time and cost to the planning process. While these factors cannot be addressed in the revised P&G, federal policy makers need to provide sufficient funding to enable the watershed and collaborative approaches. Rest assured, ASBPA will continue to advocate before Congress for the highest possible funding amounts for policies and programs that will preserve and protect America's coastlines and promote our country's water resource needs.

ASBPA's third recommendation encourages the Corps to include revisions that implement multi-objective plan formulations. First projects should be formulated to maximize all national and regional economic development benefits, environmental benefits and social benefit with a strong emphasis on public safety. Second such formulation should be based on the standards set forth in the revised P&G without regard for administration budgetary policy.

The current P&G includes four accounts to be used in evaluating water resource projects, national economic development, environmental quality, regional economic development and other social effects. However, the current P&G formulates projects for the single purpose of maximizing net

national economic development benefits. ASBPA recommends that the revised P&G build on long standing congressional policy, as well as the needs of our contemporary society and require that all appropriate national benefits be included in the formulation of water resource projects.

Corps protection projects should be formulated to maximize all national benefits on an equal basis, including recreational benefits, environmental benefits, as well as public safety benefits and other social benefits. The optimized plan should be identified and provided to Congress. For many years Administration policy has placed a low value on recreation benefits not to mention the low value it has placed on providing protection for America's coasts. The Administration could still recommend a lesser plan for congressional authorization, based on administration budgetary policy. However, Congress would then have the opportunity to authorize and therefore fund the more comprehensive plan with greater net benefits to the nation.

In addition, given the difficulties in assessing the weight which should be given to some project purposes, ASBPA recommends that the revised P&G permit flexibility in evaluating those purposes, but continue to

require full disclosure of any risks and uncertainties that may be associated with the proposed project plan.

Additionally water resource projects are formulated using various models, which predict project outputs, such as environmental benefits. Actual outputs must be carefully monitored to assure they're actually realized in as much as the project may performed differently than predicted by the models, adaptive management should be incorporated into planned project to periodically evaluate a project's performance and provide an opportunity for adjustments, if necessary.

ASBPA's fourth and final recommendation is to encourage certification and use of planning models. P&G should be revised to support the current Corps initiatives to carry out a certification process to review, improve and validate analytical tools and models for Corps business programs. The expectation is that certified models used to supporting planning studies in the future will be accepted by independent technical reviewers. It is ASBPA's recommendation that once acceptable planning models have been certified, non-federal sponsors will no longer have to participate in the costs of model development or certification for individual projects.



I again thank the Corps for allowing me to appear here today. ASBPA appreciates the opportunity to provide comments on this important matter and we welcome any questions or comments you may have. Thank you.

J. Burns

Good morning, Mr. Secretary. My name is John Burns. I'm a senior advisor at Dawson & Associates, representing our client, Tierra Solutions. It's a pleasure to be here with you this morning to talk about this important initiative and we welcome and applaud your leadership in moving so quickly on this, Mr. Secretary to get this done.

P&G is an excellent document and the P&S have served the nation well for the past two and a half decades since they were enacted by President Reagan in 1983. And due to changing circumstances and priorities, they're in need of updating and as you and General Riley have indicated and many of the speakers today.

We've reviewed the principles and standards based on our experience in the Passaic River restoration project. Based on that, we have several recommendations that we would like to present to you. Our goal in making these recommendations is to achieve a cost effective, comprehensive solution for restoration of the Passaic River.

The advantage and disadvantage of going last is most of your recommendations have already been discussed in a lot of detail, so I'll be a little brief and just basically state the objectives, rather than go into the background of them.

Our first recommendation deals with the single purpose planning objective of national economic development. And like the many speakers before us, we are also very supportive of expanding the principles and guidelines to include ecosystem restoration as a co-equal planning objective. We're also very supportive of collaborative, multi-objective, comprehensive watershed based planning. We think that is really the way to go. As General Riley indicated and Mr. Prather, you're already looking at many of those activities.

Second we also know that the principles and standards do not acknowledge human health and safety as a relevant objective. Many of the speakers before me have indicated the importance of that. We find that also important in the Passaic River and recommendation that human health and safety be treated as co-equal objectives in the principles and standards as you move forward with it.

Our third and final area that may not have been discussed so far is the use of incremental analysis. Traditionally in our Corps analysis, incremental analysis is very important, particularly for our economic outputs, but we combine that with ecosystem or health planning or water quality planning, that tends to be standards based and tends to be treated as a constraint on the planning process, rather than as a target or objective to be incrementally moved towards with costs for these incremental changes traded off against costs given up in other areas. So we would recommend that the principles and standards be revised to encourage expanded use of incremental analysis and not standards or targets that must be set as constraints on the planning process.

Mr. Secretary, again, thank you for your leadership and the opportunity to speak. P&G have served us well for the last two and a half decades and the work that you're doing from here on out hopefully will chart the course for the next two and a half decades. Again, thank you so much and appreciate the opportunity.

M. Apostolico

We had one wait list, so I'm going to ask David Conrad if you'd like to come forward, National Wildlife Federation.

D. Conrad

Thank you, gentlemen. Good morning, my name is David Conrad. I serve as Senior Water Resources Specialist for the National Wildlife Federation in Washington DC. The Federation is the nation's largest conservation, education and advocacy organization with four million members and supporters across the nation, affiliate conservation organizations also located in 46 U.S. states and territories.

We are pleased to be here today at the beginning of a process that we have long believed was critically needed the revision of the planning process for water resources development. It has been more than a quarter century since the principles and guidelines have been revised. The Federation was deeply involved in past iterations of both the principles and standards and the P&G. And we have come to see a substantial need for modernization of these rules is well overdue.

We also helped lead along with other conservation, civic, taxpayer and professional organizations over the past decade in seeking many of the policy reforms that were included in the 2007 Water Resources Development Act, including Section 2031. We see this as one of the most profoundly important exercises that the Corps and other federal water resource agencies will be involved in, one, because we believe the current

system is failing to responsibly address the nation's current and future water resource needs; and two to help reset the critical direction of our nation's water resources for the next 30-50 years.

Today we are submitting written comments and suggestions on behalf of the Federation, as well as 36 other national, regional and local conservation organizations. I would like to address first concerns about the revision process as it has been identified thus far; second, expectations and context we see surrounding these revisions; and third, some of the basic principles we believe should be at the heart of new revisions as they are being developed.

Mr. Secretary, our first and most immediate concern is that from what we see in the description of the May 8<sup>th</sup> Federal Register, we believe the process is unacceptably truncated and seriously lacks in the open and thoughtful analysis and deliberation, we believe, is essential to accomplish the purposes of these water provisions. We urge that this process be substantially modified with much more time allotted, especially at the front end for studies and inquiry and consideration and communication that is essential. We are quite concerned about proceeding to rule changes before a clear record on the underlying problems has been developed.

It has been 25 years since the P&G were first established as a replacement for the P&S. Since that time the nation has experienced huge changes in our economy, our environment and our water resources needs. The demands being made on our water resources have changed and have increased substantially and continue to increase and change, while many critical ecological systems continue alarmingly to decline. We believe these changes mandate a fundamental transformation in the direction of the P&G, a transformation that was clearly recognized by Congress in WRDA 2007.

In the WRDA, Congress set new policies for water projects with important clarifications that all water projects should reflect national priorities, encourage economic development and protect the environment by seeking to, among other things, maximize sustainable economic development, avoid the unwise use of flood plains, minimizing adverse impacts and vulnerabilities, protecting and restoring the functions of natural systems, and mitigating any unavoidable damage to natural systems. This new national policy will require the Corps projects place a significantly stronger emphasis on protecting healthy rivers, flood plain, wetlands, coastal environments that protect and sustain communities.

In mandating the P&G revision, we also believe Congress contemplated a full and open and comprehensive, deliberative process. It has directed the Corps to consult with all the other federal agencies involved with water management and with water experts and the public and allowed two full years for that undertaking. Congress specified that the revised P&G explore and utilize new approaches and methodologies. To properly implement any of these new policies and approaches will require a careful evaluation of the current methods of planning and evaluation, a review of the provisions of the existing P&G that would work against the new policies and development of a clearer consensus view of the nation's future water resources needs, especially with the added factors of increasing impacts of urbanization and growing threats of global climate change.

In addition to that, the new P&G will have to assist in prioritizing and winnowing the field of legitimate federal projects, due to an unprecedented \$80 billion, various estimates, backlog, growing rehabilitation needs, existing environmental problems, or increasing environmental problems and extremely limited funding.

Against this backdrop, our conservation organizations believe the current proposed plan to release draft revisions in a few weeks fails to provide for the open deliberation that is necessary to the revision process. We are concerned that the truncated and the relatively closed process will unduly narrow the scope of the evaluations and considerations that are essential for producing the next generation of P&G.

There are also concerns that the stated plan to separate the principles and standards section from the remainder of guidelines will perhaps improperly bifurcate consideration of basic elements that are best considered together. These concerns are even more pressing as we understand and we have heard the Secretary has already delivered a draft of proposed revisions to other federal agencies without advanced opportunity for input and very little time to respond with comments.

Sound revisions to the P&G will necessitate a clear understanding of the overarching water resources issues and challenges currently facing the nation and an understanding which needs to be developed and tested as part of this revision process will almost assuredly require commission of key studies and require the engagement of a broad range of experts, academics, economists, scientists and other federal agencies and



governmental entities and the public as was the case with the previous P&S and P&G formulations.

For instance, we would urge the Secretary to study and report on why so few non-structural project formulations have emerged from the existing P&G process and what changes are needed in the P&G to limit the overestimation of traffic during feasibility studies compared with actual subsequent experience.

The process must also insure adequate time to address and discuss the numerous problems with the P&G and planning processes that have been identified in reports issued by the National Research Council of the National Academies, the Government Accountability Office, the Department of the Army Inspector General and others. These important steps clearly cannot be accomplished in approximately one month before moving to a draft and comment stage contemplated in the current schedule.

We strongly urge the Secretary to take the fullest possible advantage of this important and long awaited opportunity by formulating a well designed, open, thoughtful and deliberative process to reform the revision

process. We would also urge that the effort, and this is common and I think some others have made this point, also urge that the effort be fully coordinated and integrated with other federal water related programs and formulated, so that they can be easily adopted on the uniform basis by other resource agencies as some point in the future.

On the substance, our organizations believe that the nation requires a fundamentally new approach to water resources planning that places the primary emphasis of project planning on protecting and restoring the nation's water resources. Such a shift is necessary because for decades we have focused almost exclusively on economic development while the ecosystem functions and the environment have been allowed to seriously deteriorate. Today this condition is undermining the long term sustainability of many critical natural resources. This can in part be linked back to the P&G and how it has been implemented.

While these approaches have produced some positive economic benefits for the nation, they have also caused significant damage to the nation's rivers, streams, and wetlands. This in turn has caused major and significant damage to fish and wildlife, increased flood risk for many

communities, reduce water quality, impaired recreational opportunities and damage the economies that rely on a healthy environment.

Transformation of the nation's rivers brought about by Corps levees, dams and dredging projects are among the leading reasons that North America's fresh water species are disappearing five times faster than land based species and as quickly as rain forest species. Indeed the damage is so widespread that the National Research Council has called for establishment of a national goal to restore ...functions along American rivers.

The current approach to project planning is not insuring protection of the environment despite the Corps' explicit environmental protection mission and specific environmental restoration programs and projects.

To the contrary, two National Academy of Sciences panels and the Department of the Army Inspector General have concluded that the Corps has an institutional bias for approving large and environmentally damaging structural projects and that its planning process lacks adequate environmental safeguards. That would be a third area that I think a focused inquiry into makes good sense. Those are findings from outside

entities, but the Corps needs to look internally to find out if it's true and why and identify that as an explicit out front finding to inform this process.

I think too many of the studies that have been have been done by outside the Corps interests. And part of the job here is to work with the Corps, have the Corps be a major player in identifying where these weaknesses may be.

I'll just say we can no longer afford the status quo or some minor amendment to the status quo approach to the planning process. A healthy future demands fundamentally different approaches to project planning, based on at least the following principles: maintaining and restoring the health of our nation's rivers, streams and wetlands and the many ecosystems services they provide should be the highest priority for project planning.

All projects must be designed to work with and maintain the integrity of natural systems, including a river's natural instream flow to the maximum extent possible. No project should be proposed or constructed unless it

has been fully and comprehensively evaluated to insure that the project will not put the public at risk.

No project should be proposed or constructed unless the Corps has fully and independently analyzed and evaluated and properly define the problem that needs to be addressed. In many cases we've seen examples where the definition of the problem was really a local definition. The Corps has a responsibility of looking at these cases from a national perspective, so that needs to be looked at carefully in this process.

If a portion of a problem could be addressed through non-structural approaches, then any further study should include those non-structural approaches as the first mandatory elements in any plan recommended by the Corps. And similarly, no structural project should be constructed if a non-structural approach would solve the problem.

A few more points, projects that encourage development in undeveloped flood plain areas should not be considered or constructed. This is a standards issue. We currently have a P&G which has very few standards. I would challenge this exercise to begin to try to identify some standards that will help with these principles. Future trends should be used to

economically justify a project only if projected future trends are based on established and demonstrated current trends and are projected only for limited periods into the future.

We believe that the nation requires a fundamentally new approach as I said that places the primary emphasis on protecting and restoring the nation's water resources. We urge that the revisions to the P&G produce this vital shift and that the Secretary establishes a full and open process for insuring the most effective revisions to this long outdated P&G. Thank you.

M. Apostolico      I wanted to let everyone know the schedule. What we're going to do now is take a short break and then we will have anybody who hasn't had a chance to speak and you'd like to, please sign up on the wait list. Then we're going to open the phone line up. So those of you on the phone line and I know you can hear me, could you please notify the operator if you'd like time to speak? And we will allocate time for the phone line after the break.

I'd ask that everyone be back at 10:45 to start back after the break. That should give everyone enough time to check those cell phone messages.

Thank you.

(Break being taken.)

M. Apostolico I've had numerous questions at the break about transcripts and comments that have been turned in. We have two transcribers and it is our understanding that we should have the transcriptions and be able to post them by the end of next week. That is an anticipated date.

Secondly, comments, those will also, as long as no one objects, your comments or written submitted comments will also be posted on the Army Corps Web site and you'll be given a link to that or access to that.

M And if they left their e-mail address here, we'll notify them where they can find that posting. If you want to be notified of where the posting is, make sure we have your e-mail address or a telephone number. I guess we'll have to publish that via e-mail, where ... leave their e-mail.

M. Apostolico I know a few people entered while the session was going on and not everyone signed in. As we said, please sign-in so that there is a record of

you being here, and also so that we can make sure you get any updated information that's released.

There is no one on the telephone that would like to make comment at this time, so we have two speakers left this morning, Dr. Dickey and Chad Berginnis.

Dr. Dickey

Good morning, gentlemen .... I'm speaking on behalf of myself. Many of you know that I am involved in many little activities, serving many masters. I'm also a professor of economics at Loyola College. And I want to speak from my perspective as having had long involvement in the P&S. The first thing I did when I came to work for the Department of the Army was to work on producing the first version of the Principles and Standards, in 1973. So I've been through it all, three times.

First of all, the same things, of course coming out, we could have had this meeting in 1973. And I think one of the things that one needs to keep in mind, is be careful of what you ask for, because you may get it. And then that becomes the issue of complexity. But the last P&G was the product of the Reagan administration and one of the great motivations was that the previous version of P&G ... version was simply too complicated. It had



too many requirements and it specifically had arbitrary requirements, which drove people crazy and so be careful, as I said, as you add objectives and so forth. I think it is good to add objectives, but don't require and EQ plan when ecological restoration is really not the issue.

If you do, do that you create a lot of resentment, people don't want to pay for that, it makes the planning process terribly complicated. I remember in the Carter P&G it was required to have a primarily non-structural plan. Well nobody could really figure out what a primarily non-structural plan was for commercial navigation. The problem was people wanted a deeper channel and it's just hard to figure out how you could realize the navigation benefits, the ... and so be careful, again, that you don't impose arbitrary requirements, as you add objectives. And as I said, there's always a cost to everything, there is no free lunch and adding more objectives complicates what is already a very complicated planning process.

Ecosystem restoration, I'm sure what I have to say won't be popular with a lot of people for various reasons. One is that ecosystem restoration has to be viewed in the context of climate change. And as we look to shifts in ecosystems and movement of species and so forth, we really have to ask

ourselves, what does ecosystem restoration mean? If you focus on restoring habitats for species and so forth, species that are going to be there, when you're finished, because they moved, they moved north or whatever.

The other aspect of climate change is in the case of navigation planning. I just finished participating in a national transportation research board panel that dealt with transportation and climate change. And one of the things that came clear to me is that as a result of climate change, if the kinds of predictions come true that seem to be most likely, there will be opening of the Arctic route, there will be changes in crop distribution patterns.

All of that has tremendous implications for the kinds of benefits that are associated with navigation improvements, whether they be deep water or inland systems. And so I think that may be an issue at the level of the procedures, perhaps, but I think the concept of when you talk about people who say, we'll we've got to incorporate climate change I think it has big implications for this concept of ecosystem restoration.

I would also remind folks that ultimately these projects have to compete in the budget process and every report and every plan has to contain the

information that is going to allow them to successfully compete in the budget process. It doesn't do any good to do a study that's not going to ever be budgeted.

The other point that I would make is that the planning guidance is just one element in producing a good plan. My experience in the context of many raw objects is that there is very little connection between what is actually done in the planning process and what the guidance directs, be done. And certainly that became clear to me when I read the history of the New Orleans project and of course it was done by Shabman & Woolley on the history of the planning of that project.

And certainly my own experience in working on the Everglades suggests there's very little connection to what the written guidance is and what planners actually do. So don't look to changes, and particularly at this level of the P&S to produce the kind of results or improvements, however you may define them, that you anticipate.

Good project planning is much more than just issuing planning guidance. And unless that planning guidance is complemented by the right kind of incentives, whether they be cost-sharing incentives or management

incentives, you're not going to be getting the kinds of plans that I think many people think we ought to get.

And I just would close by saying that I gave some of you, and I have several others here, this little pamphlet I produced on the P&G. I tried to get the Corps to put it out, and I couldn't interest anybody in it, so I just put it out on my own. And it's about the P&G. The P&G is really powerful and sophisticated framework; it's the best around, really. So what we're talking about are really marginal adjustments to a very sophisticated notion.

You know there are very few planning frameworks, which has a consistent stance, where you account for all the benefits and costs, where you begin on the presumption, as Larry said, that you don't presume that something needs to be done. That everything that comes out of the Corps planning process should be based on an incremental justification, there should be a rationale for everybody and that's a really powerful and different kind of approach to problem solving.

So I think we need to appreciate the qualities of what we have already, as we proceed to indeed modify to respond to our modern understanding and modern values. Thank you.

C. Berginnis

Good morning. My name is Chad Berginnis and I am representing the Association of State Flood Plain Managers on this particular issue. The Association of State Flood Plain Managers has established a long and mutually beneficial relationship with the Army Corps of Engineers and other Federal Agencies. Our 12,000 members represent all facets of government, especially at the local and state levels, as well as the private sector.

The state and local governments are really the Federal government's partners, when it comes to managing and protecting the nation's water resources. The ASFPM fundamentally believes that the congressionally directed review and update of principles and guidelines, now underway ranks them as among the most significant activities related to water resources that have been undertaken by the federal government in the past 30 years.

Coincidentally, we also face some uncharted territories in terms of explosive growth in population and also the limits of what our natural resource systems can support. To meet these challenges head-on will require bold and imaginative adjustments today. And the P&G, just like the last speaker had mentioned, is certainly one of the most sophisticated techniques around and tools that are out there.

In my day job, so to speak, I work with the State of Ohio and work with the FEMA mitigation programs. And I can tell you from a project planning perspective and from a comprehensiveness in terms of evaluation, the Corps process, through the P&G is something, certainly the most sophisticated that's out there.

My first comment that we have as the ASFPM is in terms of this particular process. We urge that the revisions to the P&G be accomplished in a deliberative and open fashion. From our perspective the update process appears to be on a fast track, with insufficient time allotted to shape and deliberate carefully about the proper course of this revision. We are concerned that the release of any Corps proposal this summer may derail and open and deliberative process that could lead to an overly protective stance that will limit open discussions.

Before any such release, we do believe that there is a need to assess and come to consensus on a list of overarching issues and perhaps commission necessary investigation to shape these recommendations. We're not an organization that promotes and over study of issues, but revisions to something this fundamental and significant, such as the P&G, should not be rushed. Because the revisions contemplated now, clearly will guide water resource decisions for 30 to 50 years in the future, simplistic modifications will not be in the nation's best interest.

Next, I would like to at least recognize our national accomplishments, unintended impacts and national priorities. For the last 75 years, the nation has invested in water resources, in order to expand human populations from coast-to-coast. We have developed along and with our water resources, and this policy has allowed our nation to leverage a seemingly infinite water resource space to influence where and how the population settled, expands and supports security in most regions and helped the U.S. to a super power status during the 20<sup>th</sup> century.

As a nation, we have reached the vision set forth by policy makers of the early 20<sup>th</sup> century and I think we can declare ourselves successful in this achievement. Now it is time to realize that this success has brought

unintended, but significant consequences. Once abundant water resources, such as estuaries and riparian zones have paid silently for the progress set today and many are in serious decline. Too often, we as a nation have facilitated keeping communities at risk, while giving insufficient consideration or allowance of alternative approaches that might improve long-term public safety and economic sustainability.

As a nation our collective values and priorities have changed over time. The cumulative results of growth and development have led to a noticeable degradation of the environment by the 1970's and in response, many environmental laws were passed. When P&G were being developed in the early 1980's, we were still trying to digest these laws and determine their impacts, not knowing what adjustments might need to be made in the future.

Since then, there has been a growing recognition of the importance of a healthy global environment, the extent which natural functions of regional ecosystems affect the human communities that rely on them and the necessity for protecting those linkages, in order to ensure individual well-being. A sense of manifest destiny that accompanied the nation's growth base has now been replaced by national dialogue about maintaining our



existing communities and an acute awareness that investment decisions must be made in a more strategic way.

We now need to think about of our water resource development in terms of sustainability. We have an awful lot of infrastructure that's out there, an awful lot of it that is aging and we simply will not have the resources to fund all of the priorities that we have in the future.

So in terms of adjusting the course, how might we do that? We first would suggest that we adopt a more strategic approach; this will require establishing elements, not currently found in our water resource investment tools. Broad national goals that collectively will make a difference in the long-term sustainability of our society and give priority to those projects and approaches that best meet these goals.

Sustainable actions and the ability to adapt to a rapidly changing world should become the cornerstones of our next policy paradigm. The must take precedence over the pure investment mindset of the 20<sup>th</sup> century. For the first time we would be moving from an era of harnessing abundant resources into an age of creatively managing limited resources for an ever-growing population.

In terms of refocusing the principles and standards couched within the framework of goals that promote sustainable and adaptive projects, the ASFPM urges consideration of the following accounts in a revised P&G, ecosystem restoration, public safety, other social effects, environment quality and national economic development. However, unlike current P&G procedures, NED would not be the account that drives decisions; rather it would be, at most, coequal with the other accounts.

As demonstrated in recent disasters, maximizing short turn economic gains can result in the loss of license and personal ruin that can cripple and entire region. Attempting to blend and monetize these impacts through a single economic analysis might lead to a number, but this number does not speak to the tradeoffs made in the decision making process. Many of the qualities, functions and resources that were thus traded off, are irretrievable and their loss has a permanent impact on our nation.

What's more, there are significant and unaccounted for investment costs lying further down the road when it is finally and publicly acknowledged that such natural resources are in peril, where upon restoring degraded areas, if that's even possible, becomes a national priority. How much could we have saved, if as a nation, at the outset Water Resource

Development Projects, such as the Florida Everglades or Coastal Louisiana had been planned and designed within a framework in which environmental quality and resource protection were at least equally important as NED? Perhaps it would not have been necessary to have spent the billions of dollars now required to restore these ecosystems.

A public safety and other social effects account is likewise extremely important because we are now on a dangerous path on which there is no minimum safety threshold for flood loss reduction projects and a public safety and other social effects account needs to incorporate the concept of a minimum safety standard for water resource projects. For example, minimum design standards of levies and dams, or safety and ... related measures for transportation features, such as navigation structures.

Similarly other aspects of that account need to be developed more thoroughly. Our society now places great value on community cohesion, historic preservation, social and environment justice, long-term health impacts from disasters and similar attributes, but there has really been very little research and development and therefore guidance on the other social effect accounts.

Our investment decisions for the 21<sup>st</sup> century must focus on prioritizing what we need to accomplish with the funds and energy that we dedicate to our water resources. Economic development and growth is important, but ASFPM cautions that continued focus on NED has led and inevitably will continue to lead to unsustainable and expensive attempts to manage our water-related resources and hazards.

In conclusion we must acknowledge that we leveraged virtually all of our water resources to promote development and this has taken place at a significant and perhaps unjustifiable cost for water-based ecosystems and to public safety. Correcting this imbalance is a critical priority for the nation in the 21<sup>st</sup> century. The decisions being made now, as part of the process of rising P&G will affect our water resource investments for the next 30 to 50 years.

This is the time to move forward toward goal-based outcomes. It's the time to have a national discussion about the nation's water resources and economic policies. And it's the time to rectify the imbalance in the accounts that drive decisions about how our nation's water resources will be managed in the future. The ASFPM stands ready to engage in

cooperative discussions about revisions to the P&G. Thank you very much, that concludes my statements.

Dr. T. Vanlent

My name is Dr. Thomas Vanlent. I am here on behalf of the Everglades Foundation and the Everglades Trust. We would like to offer comments on the principles and guideline s directed under Water 2007. These revisions are long overdue and we think it's imperative that the new principles and guidelines reflect the value and concerns of a majority of Americans.

The Everglades Foundation and the Everglades trust are on the front lines, as it were on the restoration of one of America's premier natural resources, the Everglades. And so we are acutely aware of how these principles and guidelines affect how we do business on a day to day basis and seeing how past misguided policies have resulted in enormous environmental damage and the ... of environmental quality that will require investments of many billions of dollars to rectify. We've also seen how these guidelines stymied genuine, core, well-intentioned efforts in environmental restoration.

We would like to offer the following constructive criticisms on how these can be improved. The first is the principles and guidelines must recognize that environment restoration and enhancement of environment quality are valid objectives for water resources projects. The current net economic development doesn't do this, yet certainly the Everglades experience shows how Congress has directed the Corps on several occasions to undertake projects, primarily for the environment benefits. This also acknowledges that in the future the Corp portfolio of projects is likely to include more and more projects whose primary benefit is environmental restoration.

Secondly, we'd like the principles and guidelines to incorporate a watershed approach. This is a pretty basic water resources planning. Most states have tried to incorporate this type of approach. The State of Florida, for example, has enshrined this principle into their water log and is one of the fundamental planning criteria they use. They setup water management districts on watershed boundaries. The Corps piecemealed project-by-project approach does not work to analyze all the potential impacts of the project.

Next I think the principles and guidelines should recognize that planning and implementation are collaborative projects with other federal and non-federal organizations. And the Corps role may depend upon who the other partners are. As an example, again the Florida Everglades, the South Florida Water Management District, who are the non-federal responses and I see Representative Bloom representing him, so I'm pleased to see that. They oftentimes have planning and ... expertise that in many ways might exceed the Corps on some local projects and success in these projects depend on each partner contributing their strength, not duplicating each other or forcing one planning model to take precedence over another.

Lastly, we think the principles and guidelines should acknowledge the procedure may have to reflect the range of policy objectives. There is not going to be a one-size fits all set of procedures that are applicable to every single type of water resources projects. Again, I'll use the Everglades as an example.

Order 2000 mandated the Corps developing the programmatic regulations which oversee the implementation of the comprehensive ... restoration project. And these are an excellent example of how the policies either tier off the principles and guidelines that are well-suited to implementation of

a specific type of project. So the principles and guidelines should get away from the one-size fits all procedures documents and recognize that there are other ways to do things, depending on the project objective.

So we recognize the extreme importance of these policies and guidelines and think that this is a great opportunity for the Corps to update not only these principles and guidelines, but make them reflect their message that reflects the current national priority. So thank you very much for your consideration on this important issue.

M. Apostolico      That concludes everyone who was signed up to speak for this morning's session. Was there anybody that for some reason did not get a chance to sign up and would like to speak? Anyone who felt they didn't get enough time and would like to add any additional comments? Wow, easy crowd.

M      Mary?

M. Apostolico      Yes?



M I'd like to recognize that we have been joined by Noel Gallahan from the Natural Resources Conservation Services. He's serving as one of our federal ... Noel, thanks.

M. Apostolico Before I hand over the mike to Secretary Woodley to make a few remarks, I just want to remind everyone that we will be reconvening at 1 p.m., and so there will be a new lottery at 1 p.m. to open up public comment again. Secretary Woodley.

J. Woodley Thank you, Mary. My only purpose for speaking up at this point is to express my profound appreciation for all of the comments that have been received today and tell you that there will be every opportunity ... will provide to accept further comments. And request, and I can tell you that if we promise we continue to receive going forward all of the same exceptionally high quality ... privileged to hear today, then that will make my job much, much easier as I evaluate the proposals that are brought forward in the course of these procedures ... process. So I'm very, very grateful to everyone who has come today and urge you to ... participate and ... idea that we're closing any doors here ... hear further comments .... Thank you very much.

M. Apostolico            Okay, that's going to conclude the morning session. We will reconvene at 1 p.m. — or the lottery will close at 1 p.m. today, for the afternoon session.

(Break being taken.)

M. Apostolico            Good afternoon and welcome to the public meeting to hear suggestions from the public for revising the economic and environmental Principles and Guidelines for water and related land resources implementation studies. My name is Mary Apostolico and I'm with SRA and I'll be facilitating this session. For those of you that weren't here this morning I will briefly go through the logistics of this afternoon. Anyone who wants to speak, please just sign-up on the sign-in sheet.

We've done a lottery of order to speaking; we have two speakers signed up so far. Oh excuse me; we now have three speakers for this afternoon. Your name will be posted up on the screen and you can come up and speak, you have approximately ten minutes to speak. This will be a listening session, the purpose of the panel here is to listen to your comments and not engage into discussion on the comments themselves.

Just a few things to note, the proceedings are being transcribed to ensure your comments are documented correctly. Members of the press and others can listen to comments presented during this meeting via a teleconference, and we will be opening the phone lines for comment, if anybody is on the phone, just please notify the operator that you would like to make comment and we will put you on the agenda.

Written comments, for anybody who brought them, written comments are due by close of business today, you can send them via e-mail and the address is on your handout. Are there any comments or questions regarding the logistics for today? Okay, I would now like to introduce the Honorable John Paul Woodley Jr.; Assistant Secretary of the Army for Civil Works.

J. Woodley

Thank you, Mary. I think it's only fair for me to mention that I have ... privilege of going this past week to the meeting of the PIANC, which is the Permanent International Association of Navigation Committees, which I'm the chair of U.S. section and Don is the President. And that meeting this year was in Beijing, China. Don came back a little before I did; I took the opportunity to spend a few more days in China with the conference. And the upshot of it is now 1 a.m. my time, so I'm not sure how

interactive I could be if that was our format. But I will be listening very carefully to everything that everyone says.

I want to say that the purpose here is to gather ideas and input into the process that has been mandated by the Water Resource Development Act to create and revise the principles and guidelines applicable to the Corps of Engineers and create a set of principles and guidelines peculiar to the Corps of Engineers, as required by the Water Resource Development Act of 2007 and that we take that responsibility very seriously. And we are very anxious to maximize opportunities for engagement and consultation and receiving ideas in this session and hearing.

I don't think we'd style it a hearing, it's a public meeting. It is just one of many opportunities that people will have to bring forward their ideas and we felt it was important at least provide the opportunities for people to come forward in person and express their views as to what direction these revisions should take and what themes we should stress as we go forward with meeting our responsibilities under the Water Resource Development Act.

So I have really had a wonderful session this morning, I've learned an enormous amount and really have a great deal of gratitude for the presenters from this morning and I know that the same thing will be true this afternoon.

I want to also want to turn the meeting over to General Riley, you know Don Riley, I've had the wonderful privilege of working with him for many years now, or several years now, as his capacity as Director Of Civil Works. Many of you know that he has very recently been promoted or at least assigned the greater responsibilities of Deputy Commander of the Entire U.S. Army Corps of Engineers. So we have him here in that capacity and also together with Steve Stockton, Director of Civil Works, our ....

The Corps is taking a little bit of a revision in how we're organized for civil works, in that the structure used to be that the General Officer was the Director of Civil Works and then the Senior Civilian was the Deputy Director. But under our new concept we're going to have another Deputy Commander for Civil and Emergency and Steve who has already assumed duties of the Director of Civil Warrants, as the senior official within the Civil Works program itself.

We do not yet have a decision from the Army leadership, as to who will fill the other Deputy Commander position, but we're anticipating that, hopefully, very soon. But in the meantime I'm delighted that Don can continue the role that he has had in providing leadership in the Civil Works arena. So Don.

General D. Riley      Thank you Mr. Secretary; we really appreciate your leadership over the many years in your position, as well, certainly for this update of our principles and guidelines. Well welcome again, to those of you who attended this morning and several new faces this afternoon.

These principles and guidelines go back to 1983, Congress just directed us this last year to update those, and so there are three components, essentially, the principles, standards and procedures. So upfront in the beginning we want to lay the groundwork for the broad values in our principles and standards and then once we've established those directions, then to tackle the more detailed procedures.

As I said this morning, it has been a long process of deliberation, really since these are '83 principles that in 1986 Congress us in Section 1135 of WRDA, the Ecosystem Restoration mission, which was a major

adjustments to our direction and much different than the '83 P&G, so just three years alter. And then WRDA 2000, section 216, prescribed the national academies to do several studies of our planning water resources and since 1992, including those 216 studies, we have had 18 national academy studies that have provided recommendations to us on water resources planning. And if you look at our regulations and circulars, we've incorporated many of those recommendations.

So this has been a long dialogue and ... since WRDA 2000 we've been in a pretty continuous dialogue about Corps reform and other descriptors like that, where we have made adjustments to our regulations since then. And then just this last two years the National Academy of Public Administrators has studied on the budgeting process for our water resources plan. And certainly in this last WRDA in 2007, with the dialogue that went in preparatory to that and the guidance that is in WRDA prescribes much of the guidance that we've already incorporated and that you will see come of these revisions and the principles and guidelines.

I mentioned this morning a quote from Aldo Leopold's Land Ethic, as he talked about stewardship of landowners and how they ought to be good

stewards of the land that they own and that essay, the land ethic in the last sense of that says recognizes that development will continue. But he states that we shall hardly relinquish the shovel, which after all, has its many good points. But we are in need of gentler and more objective criteria for its use. So I think that's applicable to the state we're in today, looking for a gentler and more objective criterion for water resource planning in the Corps.

For instance, public safety is something that we'll incorporate. We'll also incorporate the concepts of risk and uncertainty, given the uncertain future, especially when you're dealing with ecosystems and water resources. And then systems, a space function in time, a watershed space, multifunction/multipurpose project and in time over the lifecycle of a project. And then do that in a most collaborative fashion.

As you know, the executive branch, we're working on several different papers; we have one that we provided to other federal agencies with some of our initial thoughts on how the principles of standards ought to be structured. So we're working that now and we'll have opportunities for continued conversations, certainly through the public comment period and



then even after that, as you provide us — all of our stakeholders contribute to this.

Again, as Mary said, we're here to listen. We may ask questions, to clarify anything, if we have a question about understanding of your point. But our primary purpose is to listen to the public, capture those, so that we can take those back then and give it more deliberate and reason to response, rather than attempting to respond now .... So with that I'll turn it, I think now over to Mr. Larry Prather.

L. Prather

Thank you very much General. We're pleased to see you all here this afternoon and receive your .... And as General Riley said, we have time for an ongoing conversation and we'll continue the conversation. When we do have a draft out to the public, I know there will be an opportunity then that people can come in and talk to me about that draft.

I wanted to just briefly recognize, we had more federal representatives here earlier today from the agency, we have Nick Marathon from the Agricultural Market Services, they work with us on the Users Board and the '86 Act designated that we reserve it from the Agriculture Department. And I guess your ... serves in that role. And we have Noel Gallahan from

the Natural Resources Conservation Service here today, and they're a wonderful resources agency that has undergone transformation, just as the Corps has over the years.

And we have Terry Breyman from the Council on Environmental Quality that's with us today here, I appreciate you being here. Mr. Dunlop, Mr. Woodley's secretary, we have a young lady from OMB back there, remind me your name. Elizabeth, okay. And we also have Ben Simon from the Department of the Interior Office of Policy and Betsy Cody; she's from the Congressional Research Service. Did I miss any federal?

We had others from the Interior here today, ... Interior and we had Ben Grumbles who was here this morning from the EPA for about an hour. So we're working with the other agencies and they're interested in this.

So I'd just like to begin, this is background information to put this in context. What we're doing here is working on our planning process and the planning process, the backbone of it is fairly simple, and I would not expect that that part of it would change very much about how we approach that. I mean one of the complaints is that the 1983 principles and guidelines is X number of years old, 25 years old. But this problem

solving process, if you threw it out, it would be sort of like saying the logic of it was written in 1880 and we need to throw it away.

I mean this is just fundamental problem solving, if you've ever been to a management class. What it says is you find out what the problems are, you look at the context in which the problems reside and how they may structure the way you are going to solve those problems. And then you formulate alternative plans and evaluate those plans against some — for some effects that are specified that usually have to do with the criteria you're going to use to evaluate those or make choices among those plans, if you compare these alternatives according to those effects and you select a recommended plan.

So this is not a very revolutionary part of it, it does presume that you start out with no preconceived notion that anything needs to be done or what needs to be done and you assemble information in a disciplined way to make a decision, that's all this says. So that part of it, I think you can expect that it will look a lot the same when we get to the end of this.

There were two manifestations of principles and standards, they were called, in the first two instances in 1973 in the Nixon Administration and

in 1980 in the Carter Administration, there were two principles and standards that were issued pursuant to the 1965 Water Resources Planning Act. And there's a long story you could go into about how it got to where it is, but the first two of them had two objectives, NED (National Economic Development,) and EQ (Environmental Quality.)

And in the early '80's it was determined, about the time that the conversation was also going on about cost sharing, that they decided that they would collapse that to focus on one objective and that would be National Economic Development, unless the Secretary granted an exception to choose some other plan. And it did provide flexibility to formulate plans for other concerns.

This is the project selection rule, it just says, basically that you pick the plan from among the alternatives that maximizes National Economic Development benefits. Of course in its original application, plans wouldn't have been formulated for anything, but getting economic benefits as a result of that, that's the way the thing was put together.

Since General Riley mentioned the 1986 Act started us along a path of redressing places where ecologies had been degraded and that one was

tied, particularly to Corps projects. But as we moved along, there was more and more interest in the Corps having a mission that was related to restoring aquatic ecosystems. And so as that came along through the '90's and particularly with the '96 WRDA with that big Everglades provision that set the stage for the Everglades Report in '99 and then the authorization in 2000, the Kissimmee was one of those milestones. And this process unfolded and as it did, we adapted to that, even in the framework that we have in 1983 and the Secretary has granted kind of a blanket exception.

This is just a draft to show this is the idea that we give up NED by spending money to invest to get aquatic output, aquatic ecosystem outputs, just the sort of notion that the thing normally would have run that we were giving up NED, while we were producing positive, but among these alternatives, we were in the positive quad and we probably would have run along one of those axes and forgotten all about EQ, I guess that's what it amounts to. Or we would have tried to mitigate for it, to bring it back to that vertical axis.

So the Corps has *de facto* adopted an ecosystem, an ecosystem restoration as an objective. We pursue that object now and we modified the '83 plan selection rule and we know how to trade off environment and economics.

So let me say briefly, principles and guidelines have, I'd say, three conceptual parts. One of the principles is statement of the high level values and generally the decision rule about how we select alternatives in pursuit of the objectives or values. And then there are standards, which is the first chapter of guidelines and these standards basically spell out in more detail, the pursuit of the objectives, the planning process for doing that, the formulation of plans.

It is basically the planning process in the first chapter of guidelines. And then the balance of guidelines are detailed procedures that have to do with things like, how do I measure benefits for inland navigation or how do I measure benefits for water supply, municipal and industrial water supply or flood risk management?

So our proposal is to take the two most fundamental pieces of this, that reflect the values and the process for assembling the information and making the decision, the principles and the standards and to revise those.

That will give us some direction about what we need to focus on, in terms of better science and better tools, really procedures are a question, less of values and they're more of scientific or technical pursuit.

So first thing, decide what is important and how you're going to make the decisions about what's important, principles and standards and then the next step is to revise the procedures, how we measure contributions to those objectives, essentially. So the first part will be revised principles and standards, we'll have a draft revision by the end of July. Actually we hope to have one by the end of June or the first of July, we had hoped to get there, because we're on a fast track.

And the NAS panel, we'll have an NAS panel, Jeffery Jacobs from the Water, Science & Technology board was here this morning, and we're contracting with them to carry out the consultation under WRDA we're required to consult with the National Academy of Science. And that will be early August and that will be a place where you can come and participate. And we're scheduled to complete in November.

So there will be more opportunities to have conversations on this. And I'm very accessible, people know where I am, and they can find me. If

they want to talk about this once we get a draft out there, it will be much easier to have something to talk about.

And in part two, we're going to have to come up with a plan, because that's a fairly extensive set of procedures that need to be revised. So we're going to develop a thorough going literature search and try to discover what we need to do with the scope of work to get that done. And we may well have to request some appropriations for that.

So some of the issues that we have been hearing about in a decade long conversation about Corps reform, the most commonly heard criticism of the principles and guidelines, you had one objective and that economics. You can see though that we found a way to adapt to the basic planning process, the first problem solving set of steps to ecosystem restoration, we had found a way to do that.

There is also some concern that we need to move toward a more standards based approach to public safety. In other words if you started to have public safety that's based on kind of a trading it off against money or doing a quasi-economic analysis, you start to make people's safety depend on where they live. In other words, you say it's kind of hard in a society



like this to have a public safety that is determined by economic analysis.

You might want to have a standard that is nationwide and is equitably applied and when it's done, place-based sometimes, people with lower incomes don't fare as well as other places.

A watershed and systems approach, this is something that goes way back in the history of American natural resources management, almost to the beginning of the conservation movement. The idea that we should manage all of our natural resources in a systems context and in a water case, that typically is in the context of watersheds. And really in this government and in this system of federalism that we have, it's very difficult to pursue a watershed approach if you don't bring all the agencies and all the levels of government into the mix, so that you've got all the tools you need to solve the problem.

In other words if the Corps does hydro-geo ... of manipulation to recover natural water flows, then you need somebody to do the water quality and somebody needs to participate on that basis and someone needs to be responsible for ensuring that there's a meaningful biological outcome. And when the Corps leads that, that has to be integrated into the decision

process, even though the Corps may not bring all the inputs to that process. So there has to be collaboration.

So watersheds are really a fundamental idea or notion that you expand the choice set in your ability to optimize and you're able to make better choices, sort of like the free trade theorem. At any rate, the plan selection rule that we only pick ED plans, we'll need to be looking at that issue. And we need to emphasize adaptive management and that's a very disciplined approach to project design and implementation that measures your progress towards goals to prove it with sound science and then adjust the project as you go along, and actually could be implementing the project that way. And that's the deal with uncertainty.

The point of this slide is to illustrate that what we're heading for is a multiple objective approach where we conceivably are planning projects with both economic and environmental outcomes, and that we're looking at some efficient set of those projects that we have to make choices along that frontier.

That concludes my presentation. I just wanted to point out that Ken Kopocis from the Transportation Committee came back this afternoon too. I didn't mean to leave him out.

M. Apostolico      We have three speakers, the order they will be going in is Bob Weaver from Kelly & Weaver; Jane Rowan from American Water Resources Association; and Jason Albritton from the Nature Conservancy.

B. Weaver      Mr. Chairman, my name is Bob Weaver and I appear today on behalf of the Lower Platte Natural Resource Districts in Nebraska. I want to congratulate you Mr. Secretary and General Riley and Director Stockton for proceeding with this step, at this point. And I also want to recognize the ... commitment of Larry Prather and the issues that he identified in his presentation are certainly good issues that should inform this process.

The Lower Platte Natural Resource Districts in Nebraska include the Lower Platte South, the Lower Platte North and the Papio-Missouri River Natural Resource districts, established under Nebraska law in the 1960's. These sub-state districts provide plan and management services for water and other natural resources in the Lower Platte Basin, on a collaborative

basis and to a much more detailed extent from the state government agency in Nebraska.

The Lower Platte NRDs have formed the Lower Platte Corridor Alliance with six Nebraska state government agencies and work closely with local governments in the basin to address future water quality and water quantity needs in the area of expanding population between Lincoln and Omaha. This region includes exorbitant growth, high agriculture production and surface and ground water resources serving the most populated part of Nebraska, which will soon include approximately half of the state's population.

The Lower Platte NRDs have worked closely and collaboratively with the Corps of Engineers in its Omaha district for many years, three major and several other water resource projects. And I want to recognize the staff and the leadership at the Omaha district, particularly that of Ralph Rosa, who has lately retired and who has guided our efforts and assisted our efforts for many years.

The authority that initiated planning for these projects is the Lower Platte River and Tributaries Program, administered by the Corps' Omaha District

and was inserted in a resolution by the House Committee, by Congressman Doug Bereuter in the late '80's.

The three major projects authorized by the Water Resources Development Act of 2000 include the Antelope Creek flood damage reduction project, the Western Sarpy and Clear Creek Flood Damage Reduction Project, protecting water resources and infrastructure serving the Lincoln and Omaha region and the Sand Creek environmental restoration project, which is restoring wetlands serving the Central and North American Flyway and which also includes flood damage reduction benefits. All of these are good examples of multiple purposes.

Together these projects have pursued multiple integrated objectives for the watershed including flood damage reduction, protection of public health and safety and vital public infrastructure by providing multiple environmental outputs and economic benefits to the basin, its communities, Nebraska and the nation as a whole. These multiple objectives are to be further pursued on a collaborative and systems basis, with state agencies, local governments and the Corps and other federal agencies under the Lower Platte River Watershed Restoration Project, established by the Congress in WRDA '07.

Many changes affecting the nation's water resources have occurred since 1983. As a nation we have experienced expanding population and development, strong national and international economic activity with associated benefits and externalities, heightened concerns for environment quality and most recently climate change, demands on agricultural product, energy challenges and stronger resource information, science and technologies to make informed decisions. If anything, these changes have only served to heighten the national importance that water provides to American families, the nation, states and communities, both urban and rural.

All of these changes require the strengthening of the Corps missions, in close collaboration with community states, which possess fundamental legal authorities, of course and sub-state regional agencies and other federal agencies, which possess expertise so vital to informed decision-making. Those federal agencies, I'd like to recognize them, and include the USGS, the EPA, Natural Resources Conservation Service, NOAA and FEMA, among others.

Congress has established other key water planning authorities. The Federal Clean Water Act provides Parallel authority for state and local

water quality planning under sections 303E and 208. And the Federal Safe Drinking Water Act includes similar authorities to protect source waters. These responsibilities have been recognized in interagency agreements, such as the one, the watershed management between the then director of civil works and the EPA assistant administrator for water. And such agreement should be extended to meet intensifying demands for water and should be considered in developing this round of P&Gs.

How would the nation do without the Corps and its federal agency partners? Updated principles and guidelines should strongly speak to collaboration, recognizing that collectively the federal agency programs can provide major national and local state benefits for water management. We believe revised principles and guidelines should articulate the following.

First, sub-state and state water agency programs must be strengthened and assisted as a central part of the effort to pursue planning to meet national challenges and demands. This means that the Corps missions should be expanded to include a clear declaration for collaboration assistance to sub-state and state planning and management. And that this principle should be affirmed, beginning with the new P&Gs.

Second, planning and management should intensify the use of watersheds, of all sizes and include integration of surface and ground water considerations, while recognizing that the states maintain a critical role for the latter. Nebraska and its natural resource districts have been integrating water resource management for ground water and surface water for many years, and the Nebraska legislature has further strengthened this approach in this decade.

Third, investments in policy, scientific, technical and management information must be strengthened by the Congress and state legislatures and include closer collaboration by federal agencies and their state, sub-state and university counterparts.

Fourth and last local governments, Congress and the states must prepare to expand investments in water resources and water quality, by looking to additional and alternative public revenue sources, provide for the challenges and demands known now and those ahead. Congress has given the Corps wide latitude in Section 2031, to update the principles and guidelines. We urge these values that I've referred to, be reflected in the new P&Gs.



Many other national studies, agencies and venues will be considering these challenges in the coming months, to which the updated P&G can inform and contribute. That concludes my statement and I would be glad to respond to any questions.

I want to congratulate you for both putting this effort together and moving on it. And I hope that you all complete it on your schedule this year. Thank you.

J. Rowan

General Riley and Secretary Woodley, distinguished panelists, it is an honor and pleasure to stand before you here today, representing nearly 4,000 or more water resources professionals throughout the United States, who are members of the national and state sections of the American Water Resources Association.

There are many voices, and we appreciate that you have provided a forum, in which to hear the words of the AWRA. As you know, besides providing a place for scientists and engineers to discuss cutting edge science, engineering technologies and methods for improving benefits of water related projects, the American Water Resources Association has

provided a forum for Water Resources policymakers to discuss issues related to local and state and federal water policy.

We have held three water policy dialogues, the first in September 2002, in Washington DC. The second was held in February of 2005 in Tucson, Arizona and the last dialogue was held in January 2007 in Arlington. And we were pleased to have you in attendance along with a number of scientists, engineers and policymakers from numerous local, state and federal government entities.

The last dialogue was facilitated and at the end of the two days we produced a coherent strategy that touches many of the subjects addressed in the principles and standards. Although we believe that the principles and standard, when initially promulgated were useful standards to follow in the development of water resources projects.

We believe that our water policy dialogue has eliminated several ways in which they might be enhanced. They are as follows. First, the dialogue attendees agreed that water policy in the United States consists of a mixed and matched set of laws guidance, regulation and executive orders, overseen by many government organizations, including the Corps.

AWRA believes the nation needs to coalesce these directives into a common, but succinct water policy that is applied consistently to all government organizations and actions, so that approaches of strategies will be similar between them. This includes the strategies set forth for the Corps in the current principles and guidelines.

Secondly, we suggest that there be improved collaboration, not just coordination between the local, state and federal governments when considering water projects. We believe this approach will save time and resources in the long run. Needed information related to a particular project or watershed can be obtained by agencies, if they are stored in a common location. Those governmental bodies that may have funded, participated in or completed studies within a watershed previously, will be able to share their knowledge.

Finally, concerns related to impacts can be discovered early on, when the design strategy can be easily revised to compensate for identified impacts or to plan in environmental benefits.

Thirdly, the dialogue identified the efficacy of basing decisions on good science, rather than only a political or economic basis. Critical issues

related to environment, like endangered species, historic archeological resources, essential habitats or unique natural communities can be identified early on in project planning, in order to avoid sites where lengthy environmental coordination would be required. Building an environmental component into a project and counting environmental costs, using a solid scientific basis would provide a more unbiased result.

Fourth, integrated water resources management approaches to water-related projects will have a higher likelihood of achieving a balanced, sustainable, multi-objective watershed basis solution. Although state boundaries account for the jurisdiction of many state and local government entities, the natural world is divided into watersheds.

Impacts to waters within watersheds do not disappear at the state or municipal boundaries. Therefore we suggest that the principles and guidelines emphasis the importance of the multi-faceted characteristics of the watershed and to include an assessment of impacts and benefits on a watershed basis, both water quality and water quantity can account for both surface and ground water impacts.

Finally, we suggest that in the economic analysis that the principals and guidelines account for positive environmental impacts that may result from a water project development, even if they cannot be stated in economic terms. Numerous benefits can be consciously built into a water project, if the opportunity to do so is provided early on in the planning of preliminary design stages. AWRA recognizes that a project viewed holistically will most assuredly include environmental benefits when possible.

Secretary Woodley and General, we sent the results of our most recent dialogues to key members of the Congress, all of the governors and to the president, you probably know that. We have received few responses and have been disappointed with the lack of interest. The need is great and the hour is late. We believe those present at our dialogues represent some of the most informed minds in the water resources community. We respectfully request that you consider the attached, and I did attach the results of the dialogue to my written comments, from these dialogues in the conduct of your rewrite.

And as always, we stand ready to assist you, the Corps and anyone else who may ask us, in any way that we can. And we continue to appreciate

how you have supported AWRA. And that concludes my statement.

Thank you.

J. Albritton

Good afternoon, it's good to see all of you. I'm Jason Albritton; Senior Policy Advisor for Water Resources with the Nature Conservancy here in Arlington, Virginia. I appreciate the opportunity to come here and talk about this revision to the economic environmental principles and guidelines, as required by WRDA 2007. As the nature conservancy has increased our engagement in a variety of restoration projects, the Corps of Engineers has become a very important conservation partner for us. Together the Conservancy and the Corps are working a variety of projects ranging from large scale efforts in the upper Mississippi River and Everglades, to smaller scale projects under continuing authority programs.

The comments I provide today on the revision of the principles and guidelines are drawn from our experience working on the ground with the Corps and are intended to help the Corps and other agencies to more effectively and efficiently manage water resources, while meeting some of the nation's most challenging environmental problems.

In addition to my oral statement today, I have provided written comments, which I will refer you to, which provide much more detailed recommendations than I'll get into here. I would also note that our comments go a bit beyond recommendations on just the principles and standards, which are the subject of today's first phase, because many of the issues we raise apply broadly across the principles and the guidelines, for implementing them.

Also before delving into some specific recommendations on the current the principles and guidelines, I would like to highlight the need for an analytical, integrative and inclusive revision process, which I think this is a good first step toward achieving. We believe this update provides and unparalleled opportunity to ensure long-term sustainability and viability of water resources in the U.S. and we strongly recommend that the revision be accomplished in a way that ensures the end product reflects the nation's water resource priorities and effectively guides federal agencies towards meeting those priorities.

Also given the complex and critical nature of this update, we recommend a revision process that would accomplish a couple of things. First, we hope that it would continue to provide multiple opportunities for public

comment in a timeline that allows meaningful integration of that comment. It includes comprehensive integration of the expertise of other federal agencies. It is thoroughly informed by research that assesses the current state of our nation's water resources and it clearly synthesizes the strengths and weaknesses of the current principles and guidelines, so we have a foundation to build on in revising. And then lastly that it looks at future trends, so we know that the principle and guideline updates will be responsive to future needs.

We believe this deliberative approach is very consistent with past efforts ... national water policies. And we hope a similar process will be used moving forward.

To move on to some specific recommendations, we believe the ultimate goal of this update should be to move away from a water resource policy and focus primarily on economic development and to a more comprehensive approach that seeks a balance amongst multiple watershed needs. We believe this revision should set clear policy goals, based on the useful policy framework that was provided in section 2031a of WRDA 2007.



This three-pronged policy, which places equal emphasis on sustainable economic development, minimizing the unwise use of flood plains and protecting and restoring natural systems, should be explicitly reflected in the revised principles and should guide the analysis of all water resource projects.

All the other issues I will discuss are built on this theme of creating a more balanced water resource policy. First, the principles and guidelines, we think, must better address protection and restoration of aquatic ecosystems. Past entry has witnessed a precipitous decline in the ecological health of many of your nation's rivers and streams. Much of this decline is the unintended consequence of federal water development projects that provided many important human benefits, such as flood control, water supply, hydropower and irrigation.

Recognizing these impacts over decades of water resource development, we believe it is now time to update the planning process to place ecosystem protection on par with economic development, when evaluating and implementing new projects. Under the current principles and guidelines, maximizing national economic development, which accounts

for a narrow subset of a project's full economic benefit and costs, has become a primary standard for evaluating water resource projects.

We believe the P&Gs should be revised to apply more comprehensive analysis of project benefits and costs, by first incorporating a broader array of economic values into the NED account, including monetary values of services provided by ecosystems, such a flood attenuation, water quality filtration and fisheries production. In addition, other accounts that include non-monetary project benefits should receive the same weight as the NED and project planning and prioritization.

Also, as we become more aware of the ecological impacts of water resource development, as well as the benefits that ecosystems provide, we believe it is important to ensure that projects that meet both human needs and restore ecosystems, become the norm, rather than the exception.

Currently these multiple purpose projects, which I believe Larry alluded to in his presentation, are often pigeonholed into a single project purpose, so that they can be compared with other projects of the same type.

We believe that kind of comparison ignores many of the project benefits and results in the multiple purpose projects not competing as well in the

process for allocating limited federal dollars. So to remedy this problem, we believe the revision should make explicit that a project should be evaluated on its full benefits and costs and not force comparison solely on a single project purpose.

The principles and guidelines, we believe should also be updated to provide incentives for non-structural approaches to water resource projects, such as flood plain and coastal restoration, land buyouts to remove vulnerable structures and measures to prevent inappropriate development. These measures can often be the most effective solution for reducing flood risk and controlling coastal erosion and generally have numerous advantages over some structural approaches. In particular, non-structural approaches have less long-term costs, less residual risk and are generally more compatible with environmental protection and can even be an important strategy for ecosystem restoration.

Unfortunately these approaches are rarely used. The principles and guidelines do not currently any incentives for non-structural approaches. So improve the use of non-structural approaches we suggest that the revisions to the principles and guidelines should state a clear preference for non-structural approaches by requiring that these are considered first

with structural alternatives being considered, if a non-structural approach is not feasible.

We also believe broadening the focus of NED analysis, as I discussed earlier, will help ensure more accurate representation of the long-term project cost and will help ensure non-structural approaches will be used where possible.

Another important concept that we believe should be incorporated into this update is a watershed approach, which I have heard many of you comment on. Planners must be able to balance disparate interests such as navigation, flood risk management, water supply and restoration and protection of the environment in the planning for all projects. A watershed approach should involve the consultation of existing watershed data and plans an analysis of how a project meets or is consistent with broader watershed goals and engagement of other federal and state agencies and outside stakeholders.

Lastly, we believe this update should incorporate principles of adaptive management into the principles and guidelines. Despite the best planning and modeling, management of water resource projects, it needs to be

periodically updated based on new information, understanding and circumstances. Adaptive management will be increasingly important with climate change, which has already begun to influence weather and stream flow patterns and is calling into question many base assumptions about future project conditions.

Therefore, we recommend this update create mechanisms in the principles and guidelines to enable efficient adjustments to water resource projects to adapt to changing conditions. And further we believe that all projects should include an analysis at appropriate scales to gauge the potential impact of climate change on water resource goals.

In closing the Nature Conservancy believes that this update is critical to improving the planning and implementation of water resource projects of the coming decades and provides an important opportunity to build on lessons learned in river basin management, flood risk reduction and ecosystem restoration. We urge the Corps to ensure the update sets the policy necessary to balance multiple needs in our watershed and to take a more holistic approach to water resources.

We look forward to continuing to work with you as this process moves forward. And thank you for the time to comment today.

M. Apostolico        Before I open the phone lines, because I there are a few people on the phone now, is there anyone here who wanted to make comment that didn't get a chance to yet? No.

M                        Mary, I just wanted to Ted Ilston from the Water Resources Environment Subcommittee of the House Transportation Committee, apparently I overlooked you Ted, I'm sorry, the first time, I don't know if there's a light right there.

M                        You're getting old ....

M                        I'm glad you're here, I know you came late. And you were also here this morning .... I'm glad you're here.

M. Apostolico        I'm going to ask on the phones, if there is anyone on the phone, if you could open the phone lines, Elizabeth. We have a monitor on the phone helping us on the teleconference. Could you let me know if there is anybody who would like to speak?

Moderator Yes, there is someone that would like to speak. Please go ahead, your line is open.

M. Apostolico Could you please identify who you are and if you're representing an agency?

M. Samet Yes, my name is Melissa Samet, I'm the Senior Director of Water Resources for American Rivers, we're a not-for-profit conservation organization that has worked for years in reviewing, analyzing and attempting to approve core projects and policies. And we also sit as the co-chair of the National Corps Reform Network and through that network have extensive experience with Corps projects nationwide.

David Conrad, as I understand it, has already presented some of the information that we have provided in our written and detailed comments. But I did just want to highlight one very important issue that I think is essential in addition to the many other issues that have been raised in the detailed comments.

American Rivers does believe that the nation requires a fundamentally new approach to water resources project planning, one that places the

primary emphasis of project planning on projecting and restoring the nation's water resources. For decades investment in water resources has been directed to fuel economic development and while that has brought positive gains to the nation, the impact on our rivers, streams and wetlands has been dire. And as the nation continues to experience the changes from global climate change, the need to protect our limited and already degraded resources is going to become increasingly important.

I would like to just highlight one of the things that I think is fundamental to revising the principles and guidelines and that ensuring that non-structural approaches are in fact utilized whenever they can be. This is something that Corps does look at, but rarely implements, at least from our experience in reviewing Corps projects.

I think that more needs to happen than just to calculate benefits of costs of non-structural, but that what the country actually needs is a principle that says, if you can address a problem with a non-structural approach, then that is the way it should be carried out. And then only to the extent that the problem can't be addressed through non-structural, should we invest in other approaches to addressing a problem that will have an adverse impact on the nation's resources.



And we have many other issues that we think are extremely important to include in the revisions to the principles and guidelines. But I do think that a focus on non-structural and developing that in a way that actually drives the use of non-structural, it doesn't just allow it to sit out there to be selected amongst one of many. It's something that is going to be critical to moving the Corps in the direction where the nation needs it to be, and that's in a direction where you are truly protecting and restoring the nation's water resources.

So that was just the one issue that I wanted to highlight. And I very much appreciate the opportunity to present that to you today.

M Thank you very much.

M. Apostolico Is there anyone else on the phone that would like to make a comment today? I guess not. With that, I think I will turn it over to you, Secretary Woodley to make some final remarks.

J. Woodley Thank you, Mary. I want to first of all say that when I first envisioned ... I would want, opportunity I would like to have and the benefits that I would gain from it, from having a public meeting, an opportunities for any

interested person to come forward and press their views and ... on this process, I was hoping that we would attract the kind of thoughtful and detailed and very specific and reasoned comments that we have had today.

So I want to say that every expectation that I had for having this forum as an opportunity for me to once again emerge myself in these concepts and just learn from all of you, has been fully realized. I am as profoundly grateful as I can be. I thank every one of the commenter' and everyone who has been here.

I want to stress that this is not the end of a process; this is the beginning of a process. And there will be many subsequent opportunities for detailed engagement as we try to work within ourselves, within our agency, together with our federal partners and the national academy and the other people that are identified in our statutory mandate, to realize the vision that the congress had when they placed this requirement upon us in November of last year. And that we will have many, many more opportunities for the precise details of how these revisions can embody, as many as possible, of the comments and suggestions that we have received today.

So I encourage everyone to continue to pay attention to the effort that is ongoing and to lose no opportunity to intervene at any point in which you believe that that intervention could be constructive and helpful to the process. Thank you very much.

M. Apostolico      Do any other panel members want to make comments?

M                      Thank you.

M. Apostolico      Yes, I would like to thank you all again for making this meeting run so smoothly. And I wanted to thank, on behalf of everyone here, the panel for taking the time out and the federal agencies that came, again, and thanking the community for coming out and providing your input.